Petition of GLOBALFOUNDRIES U.S. 2 LLC for a Certificate of Public Good, pursuant to 30 V.S.A. § 231 to operate a Self-Managed Utility Case No. 21-1107-PET

Petition of Green Mountain Power Corporation for approval to modify service territory pursuant to 30 V.S.A. § 249 Case No. 21-____-PET

PREFILED DIRECT TESTIMONY OF JOSHUA CASTONGUAY ON BEHALF OF GREEN MOUNTAIN POWER

March 17, 2021

Summary of Testimony

Mr. Castonguay’s testimony addresses Green Mountain Power’s (“GMP”) reasons for supporting GLOBALFOUNDRIES U.S. 2 LLC’s (“GF”) Petition to operate a Self-Managed Utility (“SMU”), and explains why the Public Utility Commission (the “Commission”) should approve GF’s Petition, as conditioned, as well as the related modification to GMP’s service territory to carve out GF’s campus in the Village of Essex Junction and Town of Essex (the “Essex Campus”). Mr. Castonguay provides an overview of the historical challenges and current pressures the Petition seeks to address, and explains the reasons GMP believes GF’s SMU proposal will provide a better, long-term solution to these issues for its other customers. He also addresses the Memorandum of Understanding between GMP, GF, and Vermont Electric Power Company, Inc. (“VELCO”) and the Letter of Intent between GMP and GF, both of which include critical terms designed to facilitate GF’s smooth transition out of GMP service territory, and upon which GMP’s support is based. Finally, Mr. Castonguay describes why limited modification to GMP’s service territory to exclude GF’s Essex Campus is both appropriate and consistent with the factors set forth in 30 V.S.A. § 249, and how this transition will occur from a facilities perspective.
Exhibit List


Subsidiary Exhibits to Transmission MOU:

Exhibit MOU-1  Letter of Intent between GMP and GF
Exhibit MOU-2  Map depicting portion of GF land in the Town of Essex and Village of Essex Junction to be excluded from GMP service territory
Exhibit MOU-3  List of GMP-owned transmission facilities at Substations 86 and 87 and 115kV transmission lines 1591, 1592, 1593, and 1594 to be transferred to Vermont Transco LLC
Exhibit MOU-4  List of facilities owned by GF known as the Willison Substation to be transferred to GMP
Exhibit MOU-5  List of GMP-owned facilities known as Substations 86 and 87 to be transferred to GF
Exhibit MOU-6  One-line diagram depicting existing transmission facility ownership
Exhibit MOU-7  One-line diagram depicting proposed transmission facility ownership

1 The Transmission MOU has been submitted as Exh. GF-GR-2 in support of GF’s Section 231 Petition, and is also attached as Exh. GMP-JC-1 to this testimony, filed in support of GMP’s Section 249 Petition and Section 231 intervention.

2 The one-line diagrams provided as Exh. MOU-6 & 7 contain a confidential label in the original document, but since execution of the MOU the parties have confirmed the exhibits do not contain Critical Energy Infrastructure Information (CEII) or other confidential information and therefore they do not seek confidential treatment of either exhibit.
I. Introduction

Q1. Please state your name, address, and occupation.

A1. My name is Joshua Castonguay. I am employed by Green Mountain Power as Vice President, Chief Innovation Executive.

Q2. Have you previously testified before the Public Utility Commission?

A2. Yes, I have provided testimony on behalf of GMP in a number of proceedings, including, most recently, GMP’s BYOD & ESS joint tariff proceeding (Case Nos. 19-3167-TF & 19-3537-TF), GMP’s 2019 Rate Case (Case No. 18-0974-TF), GMP’s Multi-Year Regulation Plan proceeding (Case No. 18-1633-PET), and GMP’s Climate Plan proceeding (Case No. 20-0276-PET).

Q3. What is the purpose of your testimony?

A3. My testimony accompanies GMP’s motion to intervene in support of GLOBALFOUNDRIES’s U.S. 2 LLC’s (“GF”) Petition for approval of a proposed Self-Managed Utility (“SMU”) pursuant to 30 V.S.A. § 231, which will serve GF’s facility in the Town of Essex and Village of Essex Junction, Vermont. My testimony also supports GMP’s separate request for approval of a revision to GMP’s service territory under 30
Q4. To start, can you please summarize GMP’s position on GF’s proposal to become an SMU.

A4. GMP supports GF’s Petition to become an SMU, so long as it is implemented consistent with the terms in the Memorandum of Understanding between GF, GMP, and Vermont Electric Power Company, Inc. and Vermont Transco LLC (“VTransco”) (together “VELCO”), including the Letter of Intent between GF and GMP that is appended to it (the “Transmission MOU”). *Exh. GMP-JC-1.* The proposed approach, as conditioned, is acceptable to GMP because it mitigates the risk of GF’s departure from the state, which could result in significant costs for our customers and other utility customers, and significant economic disruption for Vermont. At the same time, the SMU transaction provides GMP customers reasonable financial terms and a clear timeline for a smooth transition to a system that recognizes GF’s unique status in Vermont and allows GF to control its own power supply needs, while shifting the market and operational risk associated with that responsibility from our customers to GF.

This approach addresses GF’s long-standing concerns related to operational costs and power management at its Vermont facility. As outlined in Mr. Rieder’s testimony supporting GF’s Section 231 Petition, GF is willing to take on the risk associated with the direct management of its power supply needs. Critical to our support is the fact that GF is in a unique position to be able to pursue this path. GF is GMP’s only customer to take power at the 115kV transmission level—in fact, it is the only retail customer in the state
with that level of service—and the only customer that has the direct connection to 115kV
coupled with distribution facilities necessary for electric service that it already owns and
manages. This will allow GF to take service directly from VELCO’s 115kV transmission
system with minimal system changes and minimal cost to our other customers. GF also
utilizes an enormous amount of power—it is our largest customer by more than double
and its load by itself is larger than all Vermont utilities except GMP and Vermont
Electric Cooperative—and has significant energy market experience based upon its other
operating plants in the U.S. and worldwide. GF has made clear to us that its goals in
power supply acquisition differ from the long-term, stably-priced portfolio approach we
typically promote for our customers, and also made clear that it is willing to bear pricing
risk in lieu of stability through direct management of its own power supply needs.

GF has a plan to manage this power supply responsibility going forward,
including developing plans for renewable and carbon-free energy purchases and
continuing energy efficiency investments at the facility. As a result, we believe the SMU
approach outlined in the Transmission MOU will encourage the long-term success and
potential future expansion of the facility to the continued benefit of all Vermon ters, while
minimizing future risk for our customers.

Q5. How is the rest of your testimony organized?

A5. In Section I of my testimony, I summarize GMP’s and GF’s historical efforts to address
GF’s unique power needs and concerns and explain how those efforts ultimately led to
the present proposal. I also explain why we believe the present proposal provides a
better, long-term solution for our customers, and the State of Vermont, compared to the
multiple short-term approaches implemented in the past with GF and its predecessor IBM.

In Section II of my testimony, I briefly summarize the analysis GMP conducted to evaluate this proposal, including our review of potential realistic alternative scenarios for the future of GF in Vermont, and what impact those alternatives would have on our customers. This analysis was conducted by Scott Anderson, and the modeling used to evaluate options for our customers is supported by his testimony and exhibit. This analysis informed GMP’s view of how best to approach this proposal.

In Section III of my testimony, I summarize and discuss the terms of the Transmission MOU between GMP, GF, and VELCO, and explain why we believe the provisions of the agreement appropriately mitigate the very real risks for customers in the absence of a long-term deal with GF. As part of this discussion, I describe the Letter of Intent between GF and GMP that establishes a four-year transition period and the related transition fee and PPA agreement that will apply during this transition period.

Finally, in Section IV of my testimony I turn to the functional and technical implementation of the SMU. I describe the GMP service territory change that is necessary to give effect to the proposed SMU, explain why this limited modification to GMP’s service territory is appropriate and consistent with 30 V.S.A. § 249, and then discuss the specific system changes and equipment transfers required to implement the SMU. Here, for example, I address how GF’s campus in the Town of Williston would remain within GMP’s service territory.
I. Background and GF Customer History

Q6. To start, can you please explain GF’s current customer status and discuss what, if any, attributes make it unique as an electric customer in the State of Vermont?

A6. GF is GMP’s largest user and our only retail Transmission Class customer and is therefore fundamentally different in both the scope and form of its power supply needs compared to all other GMP customers, and indeed all other retail electric customers in the State of Vermont. GF averages approximately 400 million kWh of electricity use per year for the last several years. This represents about 10% of GMP’s average annual load, more than twice the size of our next largest customer and many multiples larger than our typical Commercial & Industrial user. For context, GF’s load would place it third among all Vermont utilities and its annual electric usage is larger than, for example, the entire load of the City of Burlington by a meaningful margin.

In addition, as noted above, GF is also GMP’s sole retail Transmission Class customer, taking service at 115 kV directly from the state’s high-voltage transmission system under GMP Rate Class 70. GF owns and maintains its own substation transformation and distribution system for the campus. GF is also the largest manufacturing employer in the state, with over 2,100 Vermont employees, and thus has a significant direct and indirect contribution to Vermont’s economy, as described further in Mr. Rieder’s and Mr. Woolf’s testimony supporting GF’s Section 231 Petition. As they also explain, GF faces significant market pressures in controlling its power costs to remain competitive in its global marketplace. Given its size and significant electricity needs, GF’s electricity expenses have been correspondingly substantial. As GF notes,
electricity is its largest operational expense category, representing nearly 50 percent of
total operational costs to support manufacturing, and one that has compared unfavorably
to their other plants in the U.S. and globally, as they describe. Additionally, GF has other
available alternative manufacturing facilities, both in the U.S. and globally, which could
facilitate a relocation of current production from its Essex Campus.

GMP has long sought to recognize GF’s important role in the state and the high
costs of its operations in ways that appropriately mitigate risks of financial impacts on
GMP’s other customers. The Transmission Class has a favorable rate design in
recognition of GF’s usage. Even so, GF has pressed for term contracts that also hold
rates steady, like the one now in place, and has advocated for its ability to directly control
the costs and risks of its power purchases. It is becoming an increasingly difficult task
for GMP to balance the goal of achieving long-term stable power costs for the benefit of
all our other customers against the specific needs and goals of our largest customer,
particularly in light of the outsized economic impact it has in Vermont.

Q7. Can you summarize GMP’s and GF’s prior efforts to address the unique power
needs of its Essex facility, and how those efforts led to the present proposal?
A7. Yes. As described in more detail in Mr. Rieder’s testimony supporting GF’s Section 231
Petition, GMP has worked for many years with GF, and IBM previously, on approaches
to address the company’s unique power needs at the Vermont facility. Given GF’s
uniquely large energy usage and its outsized impact on the Vermont economy, GF (and
IBM before it) has successfully sought both term contracts and other accommodations
over the years\textsuperscript{3}, but no long-term solution has been found to these ongoing challenges. Most recently, in 2018, GF intervened in GMP’s rate case, multi-year regulation plan, and rate design proceedings seeking to extend certain rate adjustments and other concessions in recognition of GF’s ongoing need to reduce its overall energy costs in order to remain competitive in the marketplace.\textsuperscript{4} The outcome of this was another temporary, three-year term contract that is set to expire on September 30, 2022.

During the 2018 proceedings, the parties agreed that further work on a longer-term solution was needed, to try to stop the cycle of proposals that resulted in dissatisfaction on both sides—for GF, because it was not able to have greater control over its energy purchases despite its unique profile, and for GMP, because of our desire to do everything we can to keep costs down for other customers while helping GF remain strong in Vermont given its overall economic contribution. The goal was to find a long-term solution for both GF and GMP’s customers, one which makes financial sense for all GMP customers, and also encourages GF to remain in Vermont and grow its global business here, continuing its important contribution to Vermont’s economy.


\textsuperscript{4} See Case Nos. 18-0974-TF (GMP 2019 Rate Case), 18-1633-PET (GMP Multi-Year Regulation Plan Proceeding) and 18-2850-TF (GMP Rate Design Proceeding).
GF’s proposal to become an SMU came from discussions between GMP and GF that were held pursuant to the Term Contract currently in place between the parties. As part of those discussions, GMP and GF engaged in significant strategic analyses to try to understand the needs of both parties with respect to costs, operations, and potential solutions—looking in particular at options that could provide longer-term help to solve these challenges. Ultimately, GF becoming an SMU as proposed in the Transmission MOU is the solution that both GMP and GF found acceptable, in that it will provide GF the control that it seeks while providing greater certainty and reduced risk for GMP customers with respect to both costs and supply decisions.

Q8. **What happens when the current Term Contract expires in September 2022?**

A8. The expiration of the Term Contract is driving the timing of GF’s Petition to become an SMU, and both GMP and GF are seeking Commission approval of the Section 231 Petition and GMP’s related Section 249 Petition by November 15, 2021, if possible, so as to provide both parties greater certainty for necessary planning leading up to this transition.

From GMP’s perspective, it is important to have greater clarity over GF’s future customer status as we begin developing our next set of resource and regulation plans and upcoming rate case in order to be able to achieve the best outcomes for our customers. GMP presently anticipates filing its next multi-year regulation plan (“MYRP”) in the fall.

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5 See Case No. 18-3160-PET (Order of 12/31/2018). Among the provisions in the 2018 Term Contract was a commitment from both GMP and GF to continue to collaborate with one another on more permanent solutions. GF’s current proposal is a product of these collaborative discussions, as initially forecast in the 2019 GMP/GF Report Regarding Collaborative Process compliance filing filed on December 30, 2019 (the “December 2019 Report”).
of 2021, to allow for review and a decision in advance of the expiration of our present
MYRP on September 30, 2022. In addition, GMP will be filing its next traditional rate
case for Fiscal Year 2023 (“FY23”) in January of 2022, and a decision on GF’s SMU
proposal in advance of that time is important for overall resource and financial planning
for the FY23 rate period.

As explained further by Mr. Rieder in his testimony, receiving a decision by
November 15, 2021 is also very important for GF as it engages in its investment planning
for the coming fiscal year and beyond. Time is thus of the essence for both parties with
respect to the Commission’s decision on GF’s Section 231 Petition and GMP’s Section
249 Petition.

II. GMP Analysis of SMU Transaction

Q9. Can you explain the analysis GMP conducted to consider the potential risks and
benefits of the proposed SMU transaction for GMP customers?

A9. Yes. In order to evaluate the best path forward for our customers, we analyzed a number
of potential scenarios for the future relationship between GMP and GF and considered
the range of risks and impacts those scenarios might have on our customers. Mr.
Anderson’s testimony supports this analysis. As he describes, we considered three future
scenarios, taking into account the history of GF, and IBM before it, successfully seeking
multiple rate accommodations on the basis that those accommodations are necessary for
the facility to remain globally competitive. These scenarios included: (1) GF remains a
GMP customer, but with continued rate accommodations; (2) GF ceases operations at its
Essex facility after the end of the initial Term Contract and leaves Vermont; and (3) GF
becomes an SMU, as proposed in this transaction. Under each of these scenarios we
considered the potential impact on GMP’s retail revenues, changes in power supply costs
(including energy, capacity, and transmission), and the overall resulting impact on GMP
customers. The details of this analysis are described in Mr. Anderson’s testimony, and
his supporting calculations are provided in Exh. GMP-SRA-2.

Q10. What conclusions did you draw from this analysis with respect to the potential
scenarios?

A10. As noted in Mr. Anderson’s testimony, the departure of GF from the state in an
unplanned manner under Scenario 2 is a worst-case scenario, not only for our customers,
but for the state as a whole. It would result in an immediate rate increase for our
customers in the first year after the departure, as described by Mr. Anderson, and result in
increased transmission costs for customers of all Vermont utilities as GF’s share of
overall electric load is eliminated. Given that GF has alternative facilities available for
production in both the U.S. and globally—and given its statements that it likely will leave
the state in the absence of a long-term solution that provides direct control over the
Vermont facility’s power costs—this would remain a very real possibility for as long as
GF is a customer.

Furthermore, even if GF were to remain a GMP customer under the status quo
contract-to-contract scenario, we anticipate that we would continue to face the same

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6 As detailed in the December 2019 Report, we also considered other options, such as self-supply or purpose-built
generation, but these were rejected ultimately based on the limited cost savings that might be provided and other
anticipated development challenges. See Section V to the December 2019 Report (Collaborative Process – Program
Investigation and Research), which describes all other options discussed.
planning and cost challenges associated with serving GF that thus far have evaded a
longer-term solution. GMP would need to continue power supply planning and
purchases to serve GF’s substantial load, despite ongoing uncertainty about the future of
GF’s facility in Vermont.

It is important to keep in mind that GMP must conduct this power portfolio
planning with the needs of all of our customers in mind, taking into account all of the
relevant statutory and policy goals of the State of Vermont including achieving long-term
rate stability. GF’s individual power supply needs may not match these broader goals at
all times; GF has indicated both that they would prefer to control these power planning
activities and that they are willing to accept both the market and operational management
risk that flows from this responsibility. In early 2019, GF advised GMP to stop planning
for its load in our Integrated Resource Plans (“IRP”). However, while GF remains a
retail customer, GMP is obligated to meet GF’s needs along with all customers and must
continue power portfolio planning and purchases considering GF’s significant load
requirements together with our broader customer obligations which may be at odds with
one another.

At the same time this risk continues, we know that GF would also continue to
seek some form of regulatory relief from any future power cost changes, even when those
costs are largely outside of GMP’s control, as it has in the past (and IBM before it).
While GMP understands the pressures GF faces in remaining competitive, and
appreciates the value that GF brings to the state as a large manufacturer, taxpayer, and
employer, GF’s past and likely continuing future requests for accommodation creates a
great deal of uncertainty for GMP in its cost and supply planning, and presents a
substantial challenge as we try to generate solutions that accommodate GF but do not
harm other customers.

Q11. Turning to the proposed SMU approach, can you describe how, in your view, this
approach might help address the risks and financial impacts for GMP customers?

A11. Given the uncertainty associated with GF continuing to be a long-term GMP customer,
and the risk of volatility and cost impacts if GF were to leave the state, becoming its own
utility is the right transaction to significantly reduce future risk for our customers. This
option would first and foremost eliminate the most important risk GMP’s customers face
in the long run from an unplanned GF departure, and second, would fix the financial
impact of GF load over the 2024–2027 transition period at a secure level that GMP can
plan around and utilize to minimize customer impacts. It also eliminates the uncertainty
related to planning our long-term power supply needs.

With the PPA and the Transition Fee agreements proposed under the LOI with
GF, which are discussed in more detail in Section III below, GMP is able to appropriately
plan for and mitigate GF’s exit as a customer, cover a portion of GMP’s fixed costs
above the cost to GMP of GF’s load for a period of time, and provide the path for GF to
stay in Vermont. See Exh. GMP-SRA-2. Thus, from a risk mitigation perspective, GMP
believes the SMU approach is a good option for all involved, including our customers,
provided it is implemented consistent with the LOI and the Transmission MOU.
Q12. Beyond revenue and direct power supply impacts, are there other potential costs to
GMP customers, or other Vermont utility customers, that GMP took into account
when considering the proposed SMU transaction?

A12. Yes. One aspect that could potentially affect both GMP customers and those of the other
utilities in the state is transmission revenues. As a VELCO transmission customer, GF
will pay substantial transmission revenues directly to VELCO, instead of through GMP,
and that Schedule 21-VTransco revenue will continue to offset the contribution of all
utilities through the 1991 Vermont Transmission Agreement (“VTA”).

By becoming an independent SMU and a Schedule 21 customer of VELCO, GF’s
load will be served directly by VELCO. From a GMP customer perspective, this could
have an impact on the VELCO ownership structure in the future. Given that any future
VELCO equity calls will be based upon the percentage of each owner’s transmission cost
share, all else being equal, GMP’s share of future equity calls will be lower and
redistributed among the other owners if they choose to exercise their option, reducing
over time GMP’s share in VELCO and as a result, our earnings. Currently, VELCO does
not have a planned equity call or buyback during the transition period and through 2030.

Taking into account these potential costs and balancing them against the risks of
the worst-case scenario, GMP determined that GF’s SMU proposal was a reasonable path
forward if GF would be willing to agree to cover a substantial portion of GMP and the
other utilities’ costs associated with this new approach. On this basis, GMP negotiated a
Letter of Intent with GF and then the Transmission MOU with VELCO and GF, both of
which I discuss in more detail in the next section.
III. DISCUSSION OF LOI AND TRANSMISSION MOU

Q13. Can you explain in more detail how the Letter of Intent and Transmission MOU negotiated with GF and VELCO are designed to mitigate potential impacts on GMP customers?

A13. Yes. We’ve taken potential impacts of GF’s proposal on our customers into account and worked to design mechanisms to mitigate these potential costs and to smooth the transition for all GMP customers and the customers of other utilities. To this end, the Letter of Intent between GMP and GF includes two important mechanisms: 1) a series of transition payments (together, the “Transition Fee”) from GF to GMP on a monthly basis for a four-year period starting in October 2022 and 2) a Transitional PPA under which GMP will continue to provide GF with its full energy and capacity requirements for a three-year term from September 30, 2023 to September 30, 2026. See Transmission MOU attachment, Exh. MOU-1.7

The Transition Fee will total $15.6 million dollars, paid in monthly installments at a decreasing annual rate:

(1) $500,000 per month starting on 10/1/22 (totaling $6M for GMP FY23),
(2) $416,667 per month starting on 10/1/23 (totaling $5M for GMP FY24),
(3) $250,000 per month starting on 10/1/24 (totaling $3M for GMP FY25), and
(4) $133,333 per month starting on 10/1/25 (totaling $1.6M for GMP FY26).

The amount of the Transition Fee was negotiated between GMP and GF and is intended to partly cover the costs GF would otherwise continue to pay to GMP if it were to remain

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7 The Letter of Intent is incorporated as an exhibit into the three-party Transmission MOU, but was separately negotiated between just GF and GMP, without VELCO involvement.
a customer on the same terms for the next four years after the current contract expires at
the end of September 2022.

GMP and GF have also agreed to terms for a Transitional PPA reflected in the
Term Sheet incorporated into the Letter of Intent, which will represent GF’s contribution
to GMP’s revenue requirement over the course of four fiscal years in order to reduce the
impact of GF’s transition to an SMU on GMP’s customers. Under the Transitional PPA,
GMP will continue to sell GF power to meet its full energy needs through GMP’s own
portfolio mix at the price indicated on the Transitional PPA Term Sheet. See
Transmission MOU attachment, Exh. MOU-1, Schedule A. During the Transitional PPA
term, GMP will count the energy and capacity delivered to GF as a part of its overall
annual load deliveries to customers and cover that load as a part of GMP’s Renewable
Energy Standard (“RES”) obligations, standard offer projects, and Ryegate power
purchases. The power costs paid by GF under the Transitional PPA will be in addition to
the Transition Fees.

Together, the Transition Fees and the Transitional PPA will smooth the transition
of GF as a GMP customer to GF as an SMU and ensure an acceptable level of cost
stability and predictability for GMP’s other customers.

Q14. How did GMP and GF decide on the amount of the proposed transition fee?

A14. The Transition Fee is a negotiated amount between GMP and GF. GMP insisted on a
transition fee to minimize the impact of the transaction on other GMP customers, and GF
agreed to such a fee so long as other costs were fixed and the overall structure of the
transaction provided them a ramp-down of costs over the four years.
In determining how best to structure the Transition Fee for customers, GMP sought to maximize the net present value of the Transition Fee, meaning more money upfront. This is important to allow GMP to better smooth any impact this transaction may create for its customers by having the ability to mitigate most of the impact on any given year in order to reduce annual rate pressure. By getting over 70% of the Transition Fee at the halfway mark of the transition period, and allocating the money over the four years, it allows GMP to limit the maximum rate pressure in any given year, as described by Mr. Anderson. See *Exh. GMP-SRA-2*.

**Q15.** In your opinion, are these payments reasonable to protect GMP customers from any significant financial impacts associated with GF’s transition to an SMU?

**A15.** Yes. These payments are part of the package that allow a smooth transition for GF to become an SMU which GMP believes is the best long-term protection for its customers. As shown in *Exh. GMP-SRA-2*, the annual Transition Fee payments are important to GMP customers in the early years to mitigate lost revenue from a GF departure from retail service as a customer of GMP. The short-term financial impact that the Transition Fee is meant to cover is the result of the difference between the Transitional PPA revenues and the revenues that GMP would have otherwise received under the current special contract. Both values are known and, except for the actual load of GF, which has been fairly stable over the last few years, are not subject to significant variation. The Transition Fee covers a large portion of this variance, and as described above, limits the annual and cumulative rate pressure on GMP customers to a degree that GMP believes is
reasonable and acceptable in light of the risk and associated consequences of GF

otherwise leaving Vermont.

Q16. Let’s turn to the Transitional PPA Term Sheet. Can you explain the status of that agreement?

A16. Yes. GMP and GF have agreed to commercial terms for a wholesale “all requirements” Transitional PPA, under which GMP will continue to supply GF’s energy and capacity needs for a four-year period through a wholesale purchase power agreement. Transmission MOU, attachment *Exh. MOU-1*, Schedule A. This approach provides both parties benefits over its short duration by providing a smooth transition process and a level of cost certainty that allows each party time to adapt to their changing needs as GF implements the SMU. The present Term Sheet between the parties will be developed into a final PPA prior to implementation of GF’s SMU, if the transaction is approved.

Q17. Why did GMP and GF take the approach of using a PPA during the Transition Period?

A17. In addition to the cost certainty noted above, using a short duration energy and capacity PPA benefits both parties by eliminating the need to engage in other third-party agreements in order to address the change from today’s retail service, and also by locking in pricing for GMP. This approach allows GMP to continue providing power to GF through its existing supply sources. The Term Sheet establishes the price for supply service under the PPA, and GMP will draw on existing supply resources in the GMP portfolio to cover it. Because GMP meets its anticipated load requirements through a
mix of long- and short-term PPAs, and a meaningful portion of our portfolio is already
committed during the transition period, GMP has the supply it needs to serve the PPA
and can manage the cost risks associated with the locked pricing. In the absence of an
agreement with GF, GMP would likely need to engage in a number of resale transactions
to third parties to rebalance the supply portfolio in the short-term. Conversely, GF would
need to quickly enter into separate third-party agreements to cover its load needs with
less short-term cost certainty. A short-term transition thus makes more sense for both
parties, and also allows GF to plan for its SMU purchases and operations.

The Letter of Intent also allows the parties to better determine the appropriate
Transition Fee and structure to seek a three-party Transmission MOU with VELCO
related to how transmission services would be delivered.

Q18. **What products will GMP supply GF during the Transitional PPA?**

A18. Under the agreement, GMP will be providing GF with the energy, capacity, and ancillary
services associated with GF’s hourly usage in the ISO New England market. Because GF
will become a market participant prior to the start of the PPA, these obligations will be
nominated in the ISO New England market system in order to appear in GMP’s
settlement in a manner not unlike what occurs today. This process is well supported by
the functionality in the ISO market system and the parties do not expect implementation
of the PPA to cause any unusual settlement practices or administrative burdens. Under
the terms of the PPA, GMP will not be providing any transmission services (i.e. Regional
Network Service or local network services) to GF; these costs will be billed directly to
GF from the transmission providers. Additional detail on the party responsible for each
specific ISO New England billing item is identified in an appendix to the Transitional
PPA Term Sheet. Transmission MOU attachment, *Exh. MOU-1*, Schedule A.

Q19. **Will GMP supply GF with renewable energy under the PPA?**

A19. Yes. Under the terms of the agreement, GMP will provide GF a supply that reflects the
same environmental attributes as GMP’s continuing supply portfolio. GMP will provide
documentation on an annual basis of the allocations and retirements of RECs associated
with the GF portion of GMP’s attribute portfolio, using the current RES reporting
framework.

Q20. **How was the pricing for the PPA determined?**

A20. The PPA pricing agreement in the Term Sheet reflects the market environment during
negotiation and draws from both parties’ agreed near-term price expectations for
purchases and sales in which they would otherwise need to engage in the absence of the
PPA. Because it is a short-term agreement and covers a period where forward energy
prices are readily available and where capacity prices have already been established by
ISO New England for most of the term, the parties reached a consensus on these PPA
pricing items. To determine the additional costs associated with the delivery of ancillary
services and the provision of renewable attributes under the PPA, we used projected
values which draw on GMP’s historical experience and short-term budget projections.
Finally, all of these projected market costs were applied to the GF load profile to arrive at
the per MWh pricing schedule included in the Term Sheet.
Q21. Let’s turn to aspects of the Transmission MOU related to other Vermont utilities.

Does the Transmission MOU include any mitigation of cost risk to these utilities and their customers?

A21. Yes. In addition to the Transition Fee, the Transmission MOU requires GF to provide “Make Whole” payments that will be held by VELCO to cover potential shortfalls for the other state electric distribution utilities (“Other Utilities”) with respect to VELCO payments under the VTA as a result of GF’s departure from GMP service territory. See Transmission MOU and attachment, *Exh. MOU-1*. These payments will include the following amounts paid to a Make Whole Fund held in escrow by VELCO for distribution annually, if required, among the Other Utilities on a pro-rata share basis:

1. $250,000 due January 31, 2023;
2. $200,000 due January 31, 2024;
3. $150,000 due January 31, 2025; and
4. $100,000 due January 31, 2026.

The payment amounts were calculated based on the projected difference over a period of twenty years of (i) the Other Utilities’ pro-rata share of the VTA costs, assuming GF’s load was retained by GMP, and (ii) the Other Utilities’ pro-rata share of the actual VTA costs with GF as a Schedule 21-VTransco customer (such difference referred to as the “make-whole amount”).

The intention of the Make Whole payments is to limit any transmission service cost impacts on the Other Utilities. If the Make Whole Fund is insufficient to cover any portion of an annual make-whole amount during the 20-year period, and so long as GF
continues to operate in Vermont, GMP has committed to provide up to $700,000 in additional funding, as needed, to cover any shortfall, unless GMP and the Other Utilities mutually agree to a different approach to address such a shortfall. In addition, if other transaction-related costs to the Other Utilities arise after GF’s transition to an SMU, GMP has further committed to working in good faith to reach agreement with those utilities and to seek any necessary regulatory approvals, to mitigate or cover those costs.

Q22. Has GMP consulted with the other Vermont distribution utilities regarding this agreement, and if so, what has been the outcome of those discussions?

A22. Yes, GMP has consulted with the other Vermont distribution utilities regarding GF’s Petition, and that discussion has allowed us to share how we view the transaction, its benefits, and its effects on the customers of Other Utilities. Overall, we all understand the importance of retaining GF’s substantial transmission payments and its economic benefits in Vermont. We have discussed with all the Vermont distribution utilities the reasons behind this unique transaction. We believe we have reached an agreement in principle outlining GMP’s commitments related to the transaction, with the expectation that a memorandum of understanding will be filed in April confirming those commitments after various approval processes. We expect some of the utilities may intervene in GF’s 231 Petition proceeding order to participate and offer any perspectives needed related to this transaction.
Q23. How will GMP and its customers be protected in the event that GF changes ownership or leaves the state?

A23. The Transmission MOU between GMP, GF, and VELCO contains an assignment/reversion provision that would apply if GF changes ownership or ceases to operate and/or leaves the state. In any of those events, any successor or assignee of GF would be required to assume all of GF’s obligations under the Transmission MOU and related agreements and Commission orders. Furthermore, GF is requesting that the Commission approve a reversion condition in the CPG issued in this matter that the SMU territory will revert to GMP, to be treated within GMP’s then-applicable tariffs, in the event that any such successor or assignee failed to assume all such obligations.

IV. Service Territory and System/Facility Changes

Q24. Can you provide an overview of what needs to occur to implement the proposed SMU from a technical perspective?

A24. In the event the Commission approves GF’s proposal, technical implementation of the SMU will involve two components. First, by way of separate petition, GMP is seeking Commission approval to exclude GF’s campus in the Village of Essex Junction and Town of Essex from its service territory under 30 V.S.A. § 249. I describe the anticipated proposed service territory change first in Section IV(A) below.

If both the Section 231 Petition and this Section 249 Petition are approved, GF, GMP, and VELCO/VTransco, will then coordinate the transfer of existing electrical infrastructure assets to align ownership of the equipment serving GF’s facility with the new SMU structure and service territory. I describe the necessary equipment transfers
and likely upgrades further below in Section IV(B). GF, GMP and VELCO/VTransco will seek PUC approval for any transfers of Certificates of Public Good for these facilities, as well as approval for any necessary system upgrades or changes as appropriate in a separate request.

IV(A). GMP Service Territory Changes under 30 V.S.A § 249.

Q25. Can you explain the changes GMP proposes to make to its service territory in order to implement the GF SMU?

A25. Yes. The majority of GF’s facilities are presently located on property in the Village of Essex Junction, along with a small piece of contiguous undeveloped land in the Town of Essex (collectively described as the “Essex Campus”). GF also maintains additional facilities on the other side of the Winooski River, in the Town of Williston (the “Williston Campus”). These properties are all presently located within GMP’s service territory, and GF takes service for these two campuses at the transmission level (115kV) through three existing substations—two located on the Essex Campus (Substations 86 and 87) and one located on the Williston Campus (the Williston GF Substation). GMP is requesting approval from the Commission to exclude GF’s Essex Campus and associated property under 30 V.S.A. § 249. If this adjustment is approved, the Essex Campus would not be within the service territory of any utility, and the SMU will instead manage its own electric supply obligations through wholesale transactions, taking Regional Network Service from ISO-NE and Local Network Service directly from VTransco under
Schedule 21-VTransco of the ISO-New England Open Access Transmission Tariff.\textsuperscript{8} GF’s Williston Campus would remain within GMP’s service territory, once the associated proposed facility transfers are implemented.\textsuperscript{9}

The proposed service territory carve-out for the Essex Campus is shown on a map—\textit{Exh. MOU-2} attached to the Transmission MOU. As described further below, the proposed exclusion is narrowly tailored to the GF Essex Campus, and logically follows the geographic boundary of the Winooski River on the east and south sides, and the property boundary of GF’s Essex Campus on the west and northern sides, with a small intervening portion of railroad property bisecting the Essex Campus, included for ease of drawing the broader boundary. No other retail GMP customers are located within the proposed carve-out.\textsuperscript{10} As noted in Mr. Rieder’s testimony in support of GF’s SMU proposal, GF will not provide retail electric service to any customers, and approval of the SMU would be conditioned on precluding such retail electric service.

In the event that a portion of GF’s Essex Campus is developed in the future in such a way that retail service is needed for new customers, GMP would serve those

\textsuperscript{8} This approach will require standard filings and associated notice under Schedule 21-VTransco; FERC approval is not contemplated as needed.
\textsuperscript{9} As stated in Mr. Rieder’s testimony, GF currently uses some of the facilities located in this portion of their campus and is planning to shift those uses over to the Essex Campus in the near future. Meanwhile, GF has listed the Williston Campus for sale.
\textsuperscript{10} There is one set of railroad crossing signals on railroad property in the area GMP proposes to exclude from its service territory, which were paid for by GF to facilitate crossing between portions of the Essex Campus bisected by the railroad. These signals are presently served through GF’s distribution substations, and are paid for by GF, and will remain so after the proposed SMU transaction. In addition, GMP presently serves two sets of traffic signals on surface roads within the excluded territory, one on Robinson Parkway off of Park Street, and one located on the other end of Robinson Parkway off of Maple Street. These traffic signals are served at the distribution level from other GMP-owned facilities and are separately metered and paid for by GF. GMP and GF propose that these two signals remain on GMP’s distribution system, separately metered, with GF continuing to pay for service as a distribution customer.
customers and GMP and GF have agreed to work collaboratively to address these issues and to seek PUC approval if further adjustment of the service territory boundary is necessary for GMP to serve those customers. In addition, GF and GMP agree that the Section 231 and Section 249 Petitions should include conditions which require any successor of GF to assume all obligations of GF’s agreements with GMP and with VELCO and VTransco, any conditions imposed by the Commission and FERC, and any other applicable regulatory requirements of the SMU; and that, in the event any successor or assign fails to assume all such obligations, the Essex Campus will revert to GMP’s service territory, to be treated within GMP’s then-applicable tariffs.

Q26. Section 249 of Title 30 sets out six factors for the Commission to consider in approving a modification to a utility’s existing service territory. Have you reviewed these factors?

A26. Yes, I have. These factors include:

1) existing service areas;

2) any voluntary agreements between or among two or more such companies filed with the Commission which define service territories of the companies;

3) consistency with the orderly development of the region;

4) natural geographic boundaries;

5) compatibility with the interests of all consumers; and

6) all other relevant factors.

On the whole, these factors favor the Commission approving the modification in GMP’s service territory to remove the GF Essex Campus.
Q27. The first factor is “existing service areas.” Can you please briefly review how GF’s Essex Campus fits in to GMP’s existing service territory?

A27. Yes. As noted above, GF’s Essex Campus is currently part of GMP’s existing service territory, but it has always been uniquely situated compared to other GMP customers. GF is GMP’s sole Transmission Class customer and takes service for the Essex Campus through two existing substations on that site. GF owns and maintains the step-down transformers and on-site distribution system that serve the Essex Campus. Because of this, the GF Essex Campus is different from other areas of GMP’s service territory, and GF is uniquely prepared to take over service of this area because of its long experience owning and maintaining its distribution service equipment.

It is also important to note that the amount of area being transferred out of GMP’s service territory is very small compared to GMP’s total territory.

Q28. With respect to the second factor, are there any agreements between GMP and GF that would define the service territories of the two companies?

A28. Yes, as noted above, GMP, GF, and VELCO have executed a Memorandum of Understanding that lays out the details of how the GF transition out of GMP service territory would take place, which is described in detail in GF’s Section 231 Petition and supporting testimony of Mr. Rieder. These are voluntary agreements between the parties that clearly set forth the proposed service territory exclusion, which is attached as Exh. MOU-2 to the Transmission MOU, the facility transfer terms and obligations of each party, and the process by which the transition would occur. The requested service territory modification is thus supported by all parties involved and is necessary to
facilitate GF becoming an SMU which, as discussed above, GMP believes is in the best interest of the state and GMP’s customers.

**Q29. How will the proposed modification to GMP’s service territory impact orderly development of the region?**

**A29.** The removal of GF’s Essex Campus from GMP’s service territory will have no material impact on orderly development of the region because development of the entire campus has already occurred and it will continue to exist in its current form once it is out of GMP’s service area. If anything, orderly development of the region will be more stable with this change because it will facilitate GF’s control over its own power supply and costs, which GF has said is critical for it to remain operating in Vermont.

However, in the event that GF did sell the Essex Campus to another entity, the Transmission MOU contains assignment and reversion clauses (see Section 7), which GF and GMP both request that the Commission include in the § 231 CPG issued to GF. The incorporation of these contractual commitments into a CPG condition will ensure that any successor to GF either assumes all of the obligations of the Transmission MOU and CPG, or alternatively, that the service territory will revert back to GMP and be treated within GMP’s applicable tariffs as they exist at that point.

As a result, orderly development of the area will essentially remain the same under the GF SMU as it has been under GMP’s service, and safeguards are in place to effectuate the reversion of the territory back to GMP if anything should change with respect to GF’s or a successor owner’s ability to continue operating in the agreed-upon manner. In addition, leaving the Williston Campus portion of GF’s facility in GMP’s
service territory could potentially benefit future orderly redevelopment of the site, which could contribute to reducing costs for all GMP customers.

Q30. Are there natural geographic boundaries to the proposed modification in service territories? If so, please describe.

A30. Yes. The proposed carve-out service territory is generally defined by both property lines and geographic boundaries. As shown in the map attached as *Exh. MOU-2* to the Transmission MOU, the excluded service area includes the whole of the Essex Campus parcel, following the property line on the west and north ends, and the geographic boundary of the Winooski River on the east and south sides. As noted above, no other retail GMP customers are located within the proposed carve-out, and GF will not provide retail electric service to any customers. With the exception of the limited portion of railroad property bisecting the Essex Campus (which has no independently served electric customers), the proposed exclusion area is naturally limited to areas GF owns and occupies.

Q31. Please address compatibility of the proposed modification to GMP’s service territory with the interests of GF and GMP customers.

A31. GMP believes that the carve-out of GF’s Essex Campus from GMP’s territory in order to provide GF with the ability to become an independent SMU is in the best interests of its customers and GF. The reasons why this move is in the best interests of GF are discussed in detail in the testimony of GF’s witnesses Mr. Rieder and Mr. Woolf accompanying the § 231 Petition. For GMP customers, the move represents a way to mitigate the risk of GF
leaving Vermont and GMP’s service territory, and the significant cost implications that
would create for customers. As described in detail above, we believe a planned and
orderly transition to an SMU over a number of years is the best solution to GF’s cost
cconcerns and continued worries over its ability to remain strong in Vermont. As noted
above, GMP customers are also protected in the event that GF does ultimately leave the
state, under the reversion clause of the Transmission MOU and the requested inclusion of
this clause as a condition to GF’s CPG.

Q32. Are there other relevant factors the Commission should consider in determining
whether the proposed modification to GMP’s service territory is consistent with the
general good of the state?

A32. Yes. It is important to reiterate the unique nature of this proposed service territory
modification. GMP is only contemplating and proposing this carve-out from its existing
service area because of the singular nature of GF’s load use and customer status as
described earlier in my testimony. This transition can be accomplished through a direct
transmission connection using existing infrastructure on a single geographic site, with no
disruption or system impact to other customers. It is also worth reiterating the significant
and important contributions that GF makes to the State of Vermont as an employer,
taxpayer, and manufacturer, which are foundational reasons for supporting GF’s proposal
to become an SMU in order to help solidify its future in the state. In other words, the
proposed service territory modification will significantly increase the likelihood that GF
will remain in Vermont employing high-salaried workers, paying state and local taxes,
utilizing its property as a manufacturing facility, and continuing to be a Vermont transmission customer.

Q33. Is the proposed change in GMP service territory consistent with the general good of the State of Vermont? If so, how?

A33. Yes. For all the reasons stated above, removing the Essex Campus from GMP’s existing service territory in order to allow for GF to operate as an independent SMU is in the best interests of the State of Vermont provided that the Commission includes the requested reversion condition as part of a § 231 CPG issued to GF.

IV(B). Facility Transfers and System Changes

Q34. Let’s turn to the electrical system transfers and changes necessary to implement the SMU structure. Can you start by describing the facilities that currently serve the GF Facility?

A34. Yes. GF currently takes electric service directly from GMP as a retail Transmission Class customer (Rate 70) at 115kV through three substations:

- **GF Substation 86**, which is located on the Essex Campus. This substation is connected to VTransco’s K21 and K24 transmission lines via two 115kV lines (Line #1591 & #1592). GMP owns the 115kV lines and associated breakers and switches, including the switches at the K21 and K24 taps, and the circuit switchers and other miscellaneous 115kV equipment on the high-side of the transformers. GF owns the step-down transformers, and all of the distribution equipment on the low voltage side of the transformers. This facility, and the
associated interconnecting infrastructure, was approved by the Commission in 1979 in Docket No. 4403, with GMP and IBM as co-petitioners.

- **GF Substation 87**, which is located on the Essex Campus. This facility is also connected to VTransco’s K21 and K24 transmission lines via two 115kV lines (Line #1593 and #1594). As with the other substations, GMP presently owns the 115kV lines and associated switches including the switches at the K21 and K24 taps. GF owns the 115kV circuit breakers and the equipment on the high-side of the transformers along with the step-down transformers, and all of the distribution equipment on the low side of the transformers. This facility, and the associated interconnection infrastructure, was approved by the Commission in 1992 in Docket No. 5549, and GMP was the petitioner.

- **GF Williston Substation**, which is located on GF’s Williston Campus. This facility is connected to Substation 86 via two 115kV lines, which cross the Winooski River. GMP owns the 115kV lines and associated switches on the high-side of the transformers. GF owns the step-down transformers and distribution equipment on the low-side of the transformers. This facility, and the interconnecting infrastructure, was approved by the Commission in 1983 in Docket No. 4764.

The current “As-Is” one-line diagram for these facilities is provided as *Exh. MOU-6*, attached to the Transmission MOU.
Q35. What, if any, changes will be necessary to this existing infrastructure in order to implement the proposed SMU?

A35. Changes to the existing facilities will largely involve ownership changes as assets are transferred between the parties to align ownership with the new proposed structure. These ownership changes are more particularly described in the Transmission MOU, *Exhs. MOU-3 through MOU-7*. According to the Transmission MOU, the parties presently anticipate the following transfers:

- **GF Substation #86** – GMP will transfer to VTransco ownership of the 115kV lines and associated high-side equipment interconnecting this facility with VTransco’s K21 and K24 lines. This includes:
  - Line #1591 (0.8 miles);
  - Line #1592 (0.7 miles), including fiber optic cable;
  - Nine (9) 115kV switches;
  - 115kV Switch 24-86 (at the K24 tap);
  - 115kV Switch 21-8687 (at the K21 tap);
  - Two (2) 115kV oil circuit breakers;
  - Control building and miscellaneous equipment including relaying, control, monitoring, and metering;
  - Concrete foundations for circuit breakers, voltage transformers, lightning arrestors, structural steel support columns, and towers; and
  - Other miscellaneous 115kV equipment, perimeter fences, and ground grid.
In addition, GMP will transfer to GF four (4) 115kV circuit switchers in Substation #86. GMP will continue to own the 115kV switches in Substation #86 that connect Substation #86 with the GF Williston Substation. Thus, following these transfers, GF, GMP, and VTransco will all own portions of Substation #86, as indicated in the one-line diagram showing proposed equipment ownership. See Exh. MOU-7 of the Transmission MOU.

- **GF Substation #87** – GMP will transfer to VTransco ownership of the 115kV lines and 115kV equipment interconnecting this facility with VTransco’s K21 and K24 lines. This includes:
  - Line #1593 (0.3 miles);
  - Line #1594 (0.3 miles), including fiber optic cable;
  - Two (2) 115kV switches (5942 & 5932);
  - Switch 24-87 (at the K24 tap); and
  - Other miscellaneous 115kV equipment, and miscellaneous relaying, control, monitoring, and metering equipment.

Following these transactions, only VTransco and GF will own equipment located in Substation #87. See Exh. MOU-7 of Transmission MOU.

- **GF Williston Substation** – GF will transfer the step-down transformers and the low-side distribution equipment to GMP. This includes:
  - Two (2) 115/13.8kV 37MVA power transformers;
  - Two (2) 115kV circuit switchers;
Following these transfers GMP will own all of the equipment located in the GF Williston Substation. See *Exh. MOU-7* of Transmission MOU.

The parties are currently evaluating the condition of all of the equipment inside each facility. Some equipment maintenance activities or replacements may be required by VTransco and GMP for safety and reliability reasons prior to the transfer of these assets. This may include the removal of certain equipment such as switches no longer being used and static wires that are not necessary over the substations, along with other miscellaneous work, such as fence repairs and system grounding improvements. In addition, some minor equipment changes may be made by the new facility owners after the asset transfers occur.

Following the transfers of these facilities, and any necessary equipment maintenance and replacements, GF’s Essex Campus (served by Substations #86 & #87)
will receive Local Network Service under VTransco’s Schedule 21. GF’s Williston Campus will remain within GMP’s service territory.

Q36. How do the parties anticipate seeking PUC review and approval for these transfers and upgrades?

A36. As noted above, if the Commission approves both the § 231 and § 249 Petitions, the parties will seek any necessary approvals under Section § 248 for the proposed facility transfers and associated equipment replacements/upgrades, and any other consents or approvals required. At this time, for the sake of efficiency, we anticipate that the parties will file one joint petition to address these changes. This will include seeking to substitute, add, or remove petitioners from the related CPGs for each facility, consistent with the proposed new ownership structure. To the extent equipment changes go beyond regular maintenance or replacement activities, the parties will seek non-substantial change determinations or approval under Section 248(j), as appropriate.

V. Conclusion

Q37. In your opinion, will GF’s proposal to become an independent SMU serve the general good of Vermont? Why or why not?

A37. Yes. Allowing GF to become an SMU will help support the very important goal of keeping GF in Vermont, which will serve the general good of the state in terms of retaining high-skilled jobs and keeping GF as a Vermont transmission customer, thereby avoiding significant and ongoing impacts to electric customers, and the economy generally, if GF were to leave the state. It will also serve the goals of 30 V.S.A. § 218e,
which emphasize the critical nature of retaining manufacturing business to Vermont’s economic welfare and the need to appropriately balance energy policies and decisions with the aim of preserving these types of businesses. GF is undoubtedly a critical part of Vermont’s overall business economy and is uniquely situated to become an SMU. For these reasons, GMP believes GF operating as a utility that supplies only itself will serve the general good of the state.

Q38. Is GF’s proposal to become an independent SMU in the best interests of GMP customers? Why or why not?

A38. Yes. For the reasons more fully articulated above, GMP believes that GF exiting GMP’s service territory and serving as its own utility will provide a level of certainty for future planning that will benefit all GMP customers. The Section 231 Petition, with the conditions described above and supported by the Transmission MOU, will ensure a smooth and thoughtful transition that will take place gradually over time, and avoid the kind of significant financial impacts to customers that would occur if GF left the state. GMP believes this proposal to be in the best interest of its customers, and supports the Commission approving GF’s Petition with the conditions noted.

Q39. Does that conclude your testimony?

A39. Yes, it does.