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Mr Chris Pattas General Manager, Networks Australian Energy Regulator GPO Box 520 Melbourne VIC 3001

Dear Mr Pattas,

RE: RESPONSE TO SUBMISSIONS RECEIVED ON POWER AND WATER'S 2019-24 REGULATORY PROPOSAL

Power and Water Corporation (Power and Water) would like to thank the Australian Energy Regulator (AER) for allowing Power and Water to provide a response to the submissions received on the AER's issues paper.

We are new to the national regulatory process and would like to thank the AER for their support and guidance throughout this process. We also thank the Consumer Challenge Panel (CCP) for recognising our genuine efforts and attempts to learn and adapt as we continue our journey.

Attached to this letter we've outlined our proposed third phase of our customer engagement program, we have also included responses to the issues raised in the submissions received from:

- Local Government Association of the Northern Territory (LGANT)
- Electrical Trade Union (ETU)
- Jacana Energy
- Anonymous, and
- Consumer Challenge Panel (CCP).

If you have any questions or would like further information, please don't hesitate to contact us.

Yours sincerely

Djuna Pollard

Executive General Manager

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August 2018



Table of contents

Tabl	e of contents	2
1.	Consumer Challenge Panel (CCP) submission	3
a.	Consumer engagement	3
b.	Long term interests of consumers	4
c.	Capital Expenditure	4
d.	Operating Expenditure	7
e.	Distribution Pricing	8
f.	Demand Forecasts	8
g.	Pass through events	9
h.	Smart Meter roll-out	. 10
2.	Jacana Energy (JE) submission	. 10
3.	Electrical Trades Union of Australia (ETU) submission	.11
4.	Local Government Association of the Northern Territory (LGANT) submission	11
5.	Anonymous submission	11
a.	The Board's strategic direction	11
b.	Efficiency impacts of four regions	12
c.	Efficiency benefits of being a multi-utility and economies of scale in statutory and administrative roles .	12
d.	The climate of the Power and Water regulated electricity service area	12
e.	Capitalisation of overheads	12
f	Onex forecast	12

1. Consumer Challenge Panel (CCP) submission

a. Consumer engagement

To date we have completed two phases of our customer engagement program which informed our initial regulatory proposal. Although we are yet to fully enact our third phase (post submission phase), since our January submission we have:

- presented at the AER public forum (April 2018)
- met with the senior managers of the Darwin City Council (City of Darwin) to discuss their concerns regarding the unmetered infrastructure pricing (March and April 2018)
- provided a briefing to our Customer Advisory Council (CAC) (June 2018), and
- established a Joint Consultative Sub-Committee, which has members from the Electrical Trades Union and the Australian Manufacturing Workers' Union and meets every eight weeks, focusing on the transition to the NER.

Customer participation is a recognised challenge for us, the CCP and the AER, as evidenced by the relatively small number of submissions to the AER compared to other networks' reviews. We welcome the CCP's suggestions on how to address this and have incorporated these into our phase 3 engagement design.

We are continuing to be transparent with our customers and provide them with simple, easy to understand information regarding our regulatory proposal, including through our engagement webpage. We are highlighting important updates and providing our customers with the opportunity to provide comment and feedback. We will also use Power and Water's social media platforms and website to guide them to this information.

Table 1: Proposed customer engagement phase 3 plan

Date	Engagement activity	Topics for engagement	
August-October 2018	Meet with respondents to AER's Issue Paper	Arrange to meet and further discuss submission with the respondents to the issue paper and address the concerns they have raised¹: • LGANT • ETU • Jacana Energy	
August-October 2018	Meet with Customer Advisory Council (CAC) members	Arrange to meet and hold workshops/forums for the constituents of our CAC members.	

 $^{^{}m 1}$ Power and Water has already met with the CCP to discuss the concerns they have raised.

Date	Engagement activity	Topics for engagement	
Mid October 2018	AER's 2 nd Public Forum	Attend and present at the 2 nd AER public forum	
Mid October 2018	Customer Advisory Council (CAC) #7	Power Networks topics	
October 2018	Smart Metering – Method yet to be determined	Investigate and arrange for specific engagement on Smart Meters. Our approach will be tested with stakeholders at CAC meeting #7	
Mid December 2018	Customer Advisory Council (CAC) #8	Power Networks topics • Supporting NTG Renewables policy • Request for submissions on Draft Determination	

b. Long term interests of consumers

Power and Water agrees with the view presented by the CCP that key elements of our proposal, such as our proactive opex efficiency targets and our tariff reforms, support the productive and allocative efficiency elements of the National Energy Objective (NEO) respectively.

In addressing the dynamic efficiencies element of the NEO, Power and Water's proposed smart meter roll-out will greatly assist in achieving sector-wide efficiencies through the modernisation of the network. This will facilitate retail competition, an increase in value-add services and new energy technologies to customers by providing them access to emerging technologies such as in home displays; while also providing customers with the ability to better manage their electricity usage.

c. Capital Expenditure

Accounting for risk and the value of customer reliability (VCR) | There is currently no estimate of VCR specifically for the Northern Territory (NT) and as a result Power and Water has not widely adopted this in its modelling and testing elements of its asset planning processes. This is something we are looking to incorporate in future once an NT value is available.

Notwithstanding this situation, the NEM average VCR for residential customers has been used in economic analysis of options for several cases including the Northern Suburbs High Voltage Cable Replacement Program and Poorly Performing Feeder Program. It has also been used in the modelling of Energy at Risk for the Power Transformers Asset Management Plan and additional economic analysis conducted in response to AER Information Request IR#017.

The use of NEM average for residential customers is considered conservative as the VCR methodology is typically based on a weighted average of residential, commercial and industrial customers resulting in a higher aggregate VCR.

Connection policy changes | The CCP has welcomed the connection policy in our initial proposal whereby the connecting party would pay all connection costs. We note that AER staff advised us that this approach was inconsistent with the SCS classification criteria determined by the AER's Frameworks and Approach and that Power and Water needed to resubmit a revised proposal that aligned with the service classification the AER had determined in its framework and approach.

Power and Water is currently working on redrafting our proposed connection policy, applying the cost – revenue test for all connection applicants for non standard connections adopting the standard incremental revenue less incremental cost test when determining connection charges, equivalent to the approach applied in most other networks regulated by the AER. The new policy will be available for public comment on our website and taken to the next CAC meeting for comment (www.powerwater.com.au/engagement). We will also be circulating and testing the policy at our next CAC to explain its impacts to our stakeholders.

We will continue working with the AER to answer their questions about this policy. We would be happy to further brief the CCP on this.

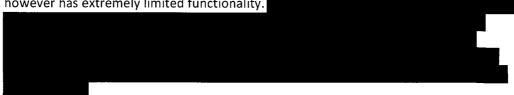
Assumptions used in AEMO's demand forecasts | Power and Water has approached the Australian Energy Market Operator (AEMO) and entered into discussions around the forecast and issues raised by the CCP.

Our planned investment in information and communications technology (ICT) | Throughout Power and Water's engagement program many customers noted difficulties in obtaining information, or accurate invoicing or usage data from us. We have proposed a targeted ICT spend throughout the 2019-24 regulatory period to address these concerns and to also ensure compliance with the National Energy Rules as in force in the NT (NT NER).

Currently many of the backend systems being utilised by Power and Water are antiquated and are in desperate need of modernisation, especially:

- Customer Relationship Management (CRM) systems The ability for Power Networks to view when and why customers have been in contact with us will provide increased levels of customer service and efficiencies in our dealings. This information will also be used to review common themes raised by customers and proactively address and resolve concerns.
- Meter Data Management System (MDMS) The introduction of the MDMS is required for Power and Water to comply with Chapter 7A. Not only will this increase the quality of meter data provided to retailers, it will also provide end use customers with peace of mind regarding the electricity invoices.
- Revenue Management System (RMS) The current system utilised by Power and Water is 17 years old and has limited ability to deal with the new market structure and transition to the NER. As our system predates the structural separation of Power and Water it doesn't

provide us with capabilities that customers now view as standard i.e. emailing invoices or access to information online. The current system is also being used as the MDMS and CRM however has extremely limited functionality.



The proposed ICT systems that Power and Water need to invest in are shared systems with the other business units within Power and Water. This has helped to minimise the impact to customers in the next regulatory period.

Prudent options assessment | Our investment planning does not simply presume like for like technology or capacity replacement. In the options analysis for several key projects Power and Water has demonstrated consideration of opportunities to reduce capacity. Specifically:

- For Berrimah Zone Substation (ZSS) Replacement the preferred option reduces the capacity of the substation by almost 30%
- For Archer ZSS Augmentation the preferred option defers investment of a third 27MVA transformer through enabling connection of one of our mobile power transformers (NOMAD) if load growth in the Palmerston area meets forecast demand.

In Power and Water's response to the AER's information request (IR#017) further consideration of demand management or non-network solutions was provided for other specific projects. The analysis identified several options for non-network solutions that weren't originally considered may be viable for the projects listed below. At the time of providing this response, cost estimates for the non-network solutions were based on very limited additional information on capital and operational cost impacts from various vendors and installers. Planning reports and a revised demand forecast from AEMO are also being addressed to determine if any reliability or security risks exist for the non-network options identified as potentially viable. Updates will be provided on the outcomes of this analysis in the Revised Regulatory Proposal. Projects being examined include:

- Lake Bennett Feeder Conductor Replacement
- Construction of Wishart ZSS
- Cox Peninsula ZSS Replacement
- Humpty Doo ZSS Replacement.

Overhead capitalisation | Power and Water's capitalisation objective is to adopt a more commercially prudent level of capitalisation in line with good corporate practice and our network peers. We seek to move to an approach that better reflects the enduring value in use to our business and customers from a range of corporate support activities.

Adopting these capitalisation practices of other networks will support better customer outcomes by capitalising our property and vehicle leases, a share of our overheads, and our IT costs. Historically we expensed these, which meant recovery in a single year's prices rather than over the life of the assets from all customers who benefit from them over time.

We consider this change is not only reasonable; it is also preferable as customers all pay their fair share of the assets over their useful life. We note the CCP's concerns, and as discussed at our 4 July 2018 CCP briefing, we note that:

- It has generally been the AER's stated preference for networks to align their statutory and regulatory treatments of costs, which supports our capitalisation of property and vehicle leases to align with changed accounting standards.
- The CCP's chart analysis ignores the fact that the accounting standard change doesn't come into mandatory effect until 1 January 2019.
- Some of the networks in that analysis have their ability to capitalise costs affected by their outsourcing models (e.g. United Energy Distribution) and are therefore not comparable to Power and Water.

Prudent RAB growth | We note the CCP's statement that 'the long-term interests of consumers is better served by lower RAB values over time — not growing as Power and Water propose'.² Power and Water considers the forecast standard control service RAB growth is consistent with our customers' interests because it is very modest (only 2% pa over the 2019-24 period).

The key drivers of RAB growth are:

- Whilst peak load is declining overall, growth is evident in some localised areas. Therefore, we are proposing targeted augex projects to meet our expected demand, including in the areas of Wishart, East Arm and Berrimah.
- We are investing in ICT to improve customer service outcomes, upgrade systems to support our network operations in line with industry standards, and improve data reliability and our reporting capability.
- Our forecast repex is 39% of our net capex, representing our largest expenditure type. However, it is down from 58% this period due to improved asset management practices and a more targeted approach to managing high risk assets.
- Part of the RAB growth is attributable to our new capitalisation policy that is harmonised to that of other networks (as discussed above).

Importantly, unlike other state-owned networks across Australia, our RAB was only set in 2014 so we only have 3 years of investment since that independent view of an efficient RAB for our network. Our RAB cannot be considered inefficient in a context where 93.2% of its current value was set by independent experts SKM and approved by the regulator, and we have actively constrained RAB growth since establishment and over the forecast period.

d. Operating Expenditure

Our efficient base year | Power and Water wishes to clarify that, consistent with common network reset practice, 2016-17 was used in the initial proposal as a placeholder for our actual base year 2017-18. The actual 2017-18 base year data will be provided in our revised regulatory proposal. This will:

- Be the most recent year of actual data available at the time of the AER's determination;
- include the savings realised in the current regulatory period as a result of the business transformation project; and
- be adjusted down by our management efficiency stretch to proactively benefit our customers and address the CCP's concern that it does not support Power and Water sharing 30% of the benefits of getting to an efficient level of opex with its customers.³

² CCP 13, Response to proposals from PWC for a revenue reset for the 20019-24 regulatory period, 16 May 2018, p.38.

³ Ibid, p.40. We note that our proactive efficiency adjustment provides 100% of our \$35m efficiency stretch to our customers. This contrasts to standard regulatory practice where efficiency benefits are released after the fact and the network retains 30% of the benefits and customers get 70% under the operation of the efficiency benefit sharing scheme.

Productivity gains | Power and Water agree with the CCP that productivity improvements are important. We also note that the management efficiency stretch over five years makes a further annual productivity adjustment in the trending (rate of change) redundant. Making such a positive productivity target as the CCP recommend, would simply mean the base year adjustment would need to be lowered to avoid double counting or reduce our opex below that which we reasonably require to operate and maintain our network and provide the levels of customer service and emergency response that our customers have told us they value.

e. Distribution Pricing

Tariff rebalancing | Power and Water's 2019-24 Regulatory proposal highlighted our need to rebalance the revenue recovery between our three customer segments, residential, small to medium businesses and our top 200 customers. This rebalancing was tested throughout our engagement program at deliberative forums, Customer Advisory Council meetings and with the affected market segment at the Large User Forum. All three demonstrated strong support for our proposed realignment and the manner in which we were giving effect to it.

The forecast revenue values by customer class included in Power and Water's Regulatory Information Notice response do not reflect Power and Water's intended rebalancing, changes in the uptake of smart meters, or changes in our demand profile. These will all be considered in the annual pricing proposals that Power and Water will submit to the AER.

Tariff trials, innovations and collaboration with retailers | We note the CCP's recommendation of tariff trials in conjunction with Jacana Energy, and also note that trials are permissible at any time under the rules, even if they have not been outlined in the Tariff Structure Statement (TSS) in accordance with rule 6.18.1C. Power and Water is happy to explore tariff trials in the future, if it makes sense to do so. Currently, this would provide no benefit or value to end use customers that consume less than 750MWh per annum under the current structure, with an Electricity Pricing Order and Community Service Obligations (CSO) in place, as any price signals will be highly muted.

We note also that we have provided for calculating dedicated tariffs for very large new connections, we believe this will provide the equivalent effect of a real world trial for those customers sufficiently large enough to affect our network demand and thus warrant bespoke tariffs targeting specific behavioural response.

Power and Water has worked closely and met often with Jacana Energy to ensure that our proposal aligns with what retailers and customers expect.

f. Demand Forecasts

Power and Water is in discussions with Australian Energy Market Operator (AEMO) to analyse the impact of the concerns raised by the CCP and if required, provide an updated demand forecast. This includes:

- Inconsistency between the level of economic activity and customer connections
- Population forecasts
- Improvements in energy efficiency/energy productivity
- Roadmap to Renewables report impacts on the demand forecast
- > Behind the meter large scale solar PV installations impacts on the demand forecast

The outcome of this AEMO engagement will be reflected in our revised regulatory proposal.

g. Pass through events

Power and Water considers that the CCP has misrepresented the intent of our single pass through proposal for dealing with future NT NER changes, and has overlooked our customer engagement feedback on this item. We request the CCP relevantly consider this issue holistically having regard to our submitted regulatory baseline document⁴ and customer engagement overview⁵.

What we are proposing and why | Power and Water tested the proposed approach through our CAC meetings, explaining the need to define a regulatory baseline for the 2019-24 regulatory determination process. It was discussed that our proposed approach of excluding uncertain items and focusing on what is known with sufficient certainty to forecast the costs accurately.

This approach means Power and Water doesn't need to carry forecasting error risk in customer prices over the 2019-24 period. As new obligations become known, a pass through would be sought from the AER.

This is a single integrated and prudent NT NER solution rather than pass through threshold issue. The pass through is not the substantive issue, it is the efficiency of Power and Water's overall investment in compliant systems and processes for the final form of NT NER. A single pass through pragmatically enables the AER to consider an integrated compliance solution rather than a means to circumvent the pass through thresholds as the CCP asserts. The interrelated nature of the successive tranches of NT NER rule changes mean it would not be prudent for Power and Water to adopt piecemeal solutions just to comply with the individual pass through provisions in the default pass through rules. To do so would not be prudent or in our customers' interests.

What we are proposing and why | At our third customer advisory council we consulted on our regulatory baseline and our approach to dealing with rules uncertainty. The relevant excerpt from Table 6 of our engagement overview is shown below. It shows that the CAC supported the approach we have proposed.

⁴ www.powerwater.com.au/2019regulatoryproposal

⁵ www.powerwater.com.au/2019regulatoryproposal

Table 1 – Excerpt from outline of phase 2 findings and our responses

Research	What they told us	How we have responded
Regulatory baseline We presented our CAC meeting 3 with information about why we need to define a regulatory baseline for the 2019-24 regulatory determination process, and discussed options for dealing with cost uncertainty. We discussed our proposed approach of excluding uncertain items, and focusing on what we know with sufficient certainty to forecast the costs accurately. This approach means Power and Water don't have to carry forecasting error risk in customer prices over the 2019-24 period. As new obligations become known, a pass through would be sought from the AER, and customer prices will only recover costs that we actually end up needing to incur.	The CAC discussed these plans and the consequences for customers, agreeing that the conservative approach struck the right balance of risk for customer and users, and avoided inflating 2019-24 prices amid uncertainty. The CAC discussions also noted that: Power and Water should consult on its pass through applications; and When considering pass throughs for new or amended obligations in the 2019-24 period, it is logical to group these together into a single pass through event.	We have reflected the regulatory baseline in our step change forecasts and pass through events proposal

h. Smart Meter roll-out

Further customer engagement | The CCP observed that while our customer engagement findings supported the adoption of smart meters, it did not present the costs and price outcomes of this to customers. Power and Water will be performing additional customer engagement regarding our proposed smart meter roll-out in October 2018. This engagement will be performed through a number of channels.

We will look to include retailers in any forums or workshops and will highlight potential improved response and reliability data, pricing impacts to end use customers and how smart meters support competition in the NT electricity market and the benefits this roll-out has in supporting the NT Government's renewable policies.

Power and Water strongly believe, as did our customers, that modernising our current fleet of meters is required to achieve future efficiencies, support the retail market, utilise changing technology and represents a major step forward for all Territorians.

2. Jacana Energy (JE) submissions

Power and Water welcome Jacana Energy's submission to the AER's issue paper, we appreciate their support of our proposal regarding the smart meter roll-out and proposed tariff design.

Jacana Energy raised concerns regarding the proposed Alternate Control Service (ACS) charges submitted as part of our proposal. We are reviewing these charges to ensure that the services we provide are charged at a fair and reasonable rate, while also recovering the costs in providing these services.

Power and Water will continue to work closely with Jacana Energy (as the dominant retailer) to ensure that end use customers receive the benefits and efficiencies of our proposal.

3. Electrical Trades Union of Australia (ETU) submissions

Power and Water welcome the ETU's acknowledgment of the challenging operating environment for our employees and infrastructure across the Northern Territory.

We have provided, in our forecast to the AER, that our wages growth is based across all Power and Water employees (office and field) and contractors, not just that of the field crews. We believe this to be a more accurate representation of our costs.

Power and Water's Networks division engages regularly with the ETU through the Joint Consultative Sub-Committee. Three meetings have been held since the submission of the Initial Regulatory Proposal, in addition to one on one discussions.

Power and Water has created a subcommittee with union membership to address the issues with transitioning to the AER and the national framework, which has included regular updates on the Distribution Determination process. The Executive General Manager (EGM) is being used as an escalation point.

Power and Water notes that it does have in place a process to identify prudent and sustainable operating efficiency initiatives to support the proactive opex savings included in our forecasts. This is discussed further in item 5.f below.

4. Local Government Association of the Northern Territory (LGANT) Submission

Power and Water recognises the concerns raised by LGANT regarding the cost disparity between the 12 and 24 hour unmetered network charges outlined in our 2019 regulatory submission.

We have designed our tariffs suites to be cost reflective and to recover no more revenue from these services than we do today. We have identified an error in the calculation and will rectify this in the Revised Regulatory Proposal.

We wish to see our customers take advantage of smart technology. We are currently reviewing the split between these charges to address this issue when we resubmit later this year. We are also working with the Department of Treasury and Finance to clarify the public lighting arrangements that will be incorporated in Chapter 7A of the NER. These arrangements are likely to impact how public lighting charges are applied and as such are fundamental to Power and Water's revised proposal.

5. Anonymous submissions

a. The Board's strategic direction

The Business Transformation Program (BTP) mentioned in The Board's Strategic Direction 2016-20 was substantively scoped and actioned in 2016, with the key projects and initiatives handed over to the business units to finish embedding through business as usual accountabilities.

The Target Operating Model (TOM) is a new initiative driven by our desire for further efficiencies over the next regulatory control period and is the relevant initiative for realising the opex savings we have forecast for the regulatory period that is the subject of the AER's review.

b. Efficiency impacts of four regions

As set out in section 3.3 of our regulatory proposal, we note that due to our unique geographic characteristics and that we service a relatively low number and density of customers compared with our Australian network peers, we incur additional costs compared with our peers. Further, the need for three separate networks to service our customers requires standalone operations for each service area, which is costlier than operating a single integrated network. We also believe that our second largest network, Alice Springs, is comparatively large compared with our largest network, Darwin, and is not comparable to depots of our peers. In any case, we think that care must be taken when comparing depots of our peers with our three separate networks.

c. Efficiency benefits of being a multi-utility and economies of scale in statutory and administrative roles

As set out in chapter 11 of our regulatory proposal, we recognise that we appear to have higher maintenance and network overhead expenditure than many networks and that there is room for improvement as we continue our drive to reduce costs over time. Therefore, we have targeted a reduction of \$35.2 million, or 10 per cent, to our base year opex over the regulatory control period. See our response to matter 5(f) below for more information on our targeted efficiencies.

d. The climate of the Power and Water regulated electricity service area

As noted in section 3.3 of our regulatory proposal, the demanding climatic conditions that we operate impose serious threats to our assets and can result in those assets degrading quicker and failing more often than those of most other networks in the National Electricity Market. This was evidenced recently in the 2018 Cyclone Marcus, which had many of our customers without power for many days and our crews working in stifling conditions around the clock to restore power across Darwin.

Our focus is to ensure, in light of the diverse climate we face, that we provide the system reliability and security that our customers want.

e. Capitalisation of overheads

As discussed in section 1.c (above), our capitalisation objective is to adopt a more commercially prudent level of capitalisation in line with our peers (as noted by the writer). Further, we note that it has generally been the AER's preference for networks to align their statutory and regulatory treatments of costs.

f. Opex forecast

Our proposal includes a top-down efficiency reduction of 10 per cent to our 2016-17 base year opex. The reduction recognised that we appear to have higher maintenance and network overhead

expenditure than many networks, and was a proactive forecasting action to create stretch for our management team to find efficiencies in our business.

Having pre-emptively set these targets, we have started to mobilise to establish a program for realising them. The Target Operating Model (TOM) project will be an important part of this. We have recently secured agreement to resource a team for this project in the near future. Once established, the team will scope, seek approvals of, and deliver the project through to around 2022. An important part of this will be the necessary stakeholder, communication and change management work needed to bring our shareholder and employees along this journey.

The TOM project is a Power and Water portfolio-wide initiative looking to better organise our business structure, systems and processes to enable us to uplift organisational capability, maximise synergies, and deliver better value for our customers and the Northern Territory.

The project is in its infancy and scoping stage rather than decision and implementation stages. Consequently, at this stage we are not able to provide information on the key steps and milestones. We are still in the early scoping stages of the project and no key decisions have been made. The current phase involves developing a 'blueprint', which is about forming a high level view of what the TOM project could look like.

g. The relative impact of short service-life assets on customer pricing

Our capex program is developed to ensure that we provide a safe and reliable network, and meet our customer's service expectations whilst minimising the total cost of asset ownership and operation over their service life. We consider the condition of our assets to meet these requirements and when replacing or expanding our network and services we consider the most efficient technical and cost option. At no time is our decision on our capex program driven by the life of the asset and consequent revenue outcomes. Further, we note that in making our regulatory proposal, we considered the overall impact of our proposed revenue requirements on the prices for our customers, and are pleased that our proposal will deliver network bill savings (excluding the impact of inflation) for most of our customers.

h. Demand consumption forecast

We note that we are discussing options with AEMO to consider any need for updates in the forecast customer numbers, which will be reflected in our Revised Regulatory Proposal.

i. Capex projects

Since lodging our regulatory proposal, we have been working with the AER and its technical advisors on the technical aspects of our capex program.