December 19, 2019

To: Utilities and Transportation Commission (UTC) Records Center, records@utc.wa.gov

From: Vashon Climate Action Group

Regarding: Notice of opportunity to file written comments, Docket UE-190698

The Vashon Climate Action Group (VCAG) welcomes the opportunity to provide written comments, enclosed, regarding the Electric Integrated Resource plan (IRP) rulemaking docket UE-190698. Two VCAG members are part of the Puget Sound Energy (PSE) Technical Advisory Group (TAG). We participated in the 2017 PSE IRP UTC Hearing and the 2019 PSE IRP planning activity. Our submitted comments are directly informed by participation in these activities.

The work of the Commission, prompted by the passage this year of the Clean Energy Transformation Act (CETA) is important. Legislative changes, embodied in CETA, have long been called for by PSE TAG members. We look forward to supporting the Electric IRP rulemaking process to assure the intent and practice of CETA are clearly established in the Washington Administrative Code.

Please do not hesitate to contact me with questions should they arise. We look forward to participating in hearings and other proceedings to support CETA rulemaking.

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IRP Docket UE-190698 inputs from Vashon Climate Action Group

"Summary Highlights" of VCAG UE-190968 inputs

- Given the complexities of the IRP process, UTC statements justifying the work to update the IRP rules and the new challenge created by the Clean Energy Transformation Act schedule, VCAG does not support changing the IRP frequency to every four years.

- We recommend the Commission conduct a hearing of the DRAFT IRP and the FINAL IRP.
    - The DRAFT IRP hearing will provide important feedback that will encourage utilities to steer the last four months of IRP analysis to better align with consumer and government needs and objectives.
    - The Final IRP hearing will help the utility create an adequate CEIP.

- To enhance public participation, require utilities to solicit IRP topics to be considered in the IRP workplan from members of the advisory group two months before the utility proposes their IRP work plan.

- Specific additions to the IRP, to allow the Commission to adequately review utility progress in the Clean Energy Transformation Act:
    - What is the utility clean energy transition timeline?
    - What is the plan (assets acquired, assets retired)
    - Clarify capital and environmental costs and cost risk of the transition plan
        - Is the transition plan delayed due to the cost of compliance requirement?

        - Include a "High Impact" greenhouse gas emissions analysis
    - Clarify risks and opportunities of the transition plan, for
        - Transmission resources
        - Renewable energy resources
        - Energy efficiency resources
        - Demand response resources
        - Storage resources
        - Market solutions
    - A requirement for utilities to show compliance with:
        - Approved city & county clean energy policy goals and timelines.
        - Approved state & federal clean energy policy goals and timelines

- The Commission should provide explicit guidelines for utility incorporation of the social cost of greenhouse gas emissions in IRP analyses
    - Including at least one High Impact sensitivity

- Change the level of public participation from "consult" to "involve"

- Add fuels synthesized using renewable hydrogen to the "renewable resource" definition

- Add requirement that utilities expressly include in their IRP document their portfolio of purchased electricity by contract, the megawatt hour capacity of the contract the greenhouse gas emissions of the contract and the expiration date of the contract.

- Add a requirement for the utility to document their rationale if they choose to not include any technical or public input in their IRP analysis and IRP document

Responses to specific questions in the Notice of Opportunity to File Written Comments (note – all questions paraphrased from the UTC "notice of opportunity to file written comments" letter):

- Q1a: Should UTC reduce frequency of "full IRPs" every 4 years? Why or why not?
    - No, the UTC should not abandon the practice of a full IRP every two years. We completely agree with UTC statements that IRP's need to "address the rapid technological advancements in the electric industry", especially given "CETA, which requires electric utilities to transition to a carbon neutral supply of energy by 2030 and to become 100 percent carbon free by 2045". Moreover, the dire schedule warnings of the Intergovernmental Panel on Climate Change demand a more frequent evaluation of utilities integrated resource plans, not a less frequent evaluation. During a time of accelerated change, the IRP process schedule should not be relaxed. Doing so risks delaying incorporation of technical inputs that could enable a successful transition. Doing so depletes the regulatory oversight essential to achieving this time-critical outcome.

- Q1b: If the commission relaxes the IRP schedule, which IRP components should be updated?
    - We do not recommend relaxing the IRP schedule.
    - In the event the UTC finds it is unable to support the current practice of an IRP every two years, the following elements of the IRP must be updated every two years to facilitate the CETA transition:
        - Updates to the Clean Energy Action Plan
        - Utility responses to technical and public inputs received on the IRP and Progress Report, including utility rationale for any public input or advisory group technical input not incorporated into IRP analyses.
        - Updated demand side load
        - Updated conservation resources and the amount of conservation resources acquired over the previous two-year period
        - Updated energy efficiency resources and the amount of energy efficiency resources acquired over the previous two-year period
        - Updated demand response capacity and the amount of demand response capacity acquired over the previous two-year period
        - Updated renewable energy capacity requirements, new commercially available renewable energy, updated renewable energy cost data and the amount of renewable energy capacity acquired over the previous two-year period
        - Updated load management resources and the amount of demand side load offset by load management resources acquired over the previous two-year period
        - Updated transmission / distribution system requirements and proposed or planned capital projects and their rationale
        - Updated distributed energy resource forecast and the amount of distributed energy resources acquired over the previous two-year period
        - Updated conservation potential assessment and the amount of conservation successfully implemented over the previous two-year period
        - Updated benefits and risks of new capital projects
        - Potential updates to cases, scenarios and sensitivity analyses as informed by public inputs and advisory group technical inputs
        - Updated comparative evaluation of resources
        - Update assessment of methods and commercially available renewable energy and energy storage systems
        - Updated transmission capacity forecast

- Q2: Is the IRP workplan / draft IRP schedule OK?
    - There are two changes recommended to the proposed work plan:
        - Add the proposed method the utility will use to evaluate advisory group technical inputs, including the approach used to achieve consensus on incorporation of advisory group technical inputs in the integrated resource plan analyses.

        - Add new sub-section (4): Not later than seventeen months prior to the due date of its integrated resource plan, the utility must invite advisory group members to identify significant topics that will be discussed during the integrated resource plan period.

- Q3a: Ideal timeline for IRP and CEIP filings
    - Ideally, for advisory group members, the IRP (which contains the CEAP) and the CEIP should be filed by 1/1/2021 and updated every two years thereafter. Legislation calls for the CEIP to be filed by 1/1/22. The Commission should strive to have the CEIP released as soon after the IRP hearing as possible, not to exceed two months later.

- Q3b: Relationship between IRP and CEIP
    - Because the IRP provides the analysis baseline for the CEIP, it is critical that:
        - The energy efficiency, demand response and renewable energy targets of the CEIP should be informed by the IRP analyses.
        - The schedule to achieve greenhouse gas neutrality in the CEIP, should be informed by the IRP long-range assessment of demand forecasts, resource evaluations and resource adequacy requirements.
        - The cost of compliance requirement, whose compliance plan is contained in the CEIP, should be based on the analyses and assessments contained in the IRP.
        - These specific IRP analyses and assessments are critical to development of the CEIP:
            - Conservation resources
                - and the ten-year conservation potential assessment
            - Energy efficiency resources
            - Demand response and load management resources
            - Renewable energy resources
                - Including battery storage
                - Including pumped hydro
                - Including non-conventional generation
            - Transmission / Distribution system capacities
            - Distributed energy resources
            - Benefits and risks of building new resources
            - Comparative evaluation of:
                - Transmission / distribution system costs
                - Conservation and energy efficiency resources
            - Environmental risks of new and existing resources
            - Social cost of greenhouse gas emissions of new and existing resources
            - Incorporation of state and federal resource preference policies

- Q3c: How the CEAP <u>informs</u> the CEIP
    - There are a few ways in which it is desirable that the CEAP informs the CEIP:
        - The ten-year "potential demand response, conservation potential, load management programs, transmission / distribution system and renewable

energy acquisitions" defined in the CEAP create an acquisition and design baseline against which the energy efficiency, demand response and renewable energy targets of the CEIP can be re-evaluated every four years.
    - The resource adequacy requirement of the CEAP should be a consideration when creating the CEIP.
    - The CEAP, which is the only document that addresses the CETA requirement to eliminate coal-based electricity by 2025 will inform the CEIP of the amount of electricity generation that must be replaced, allowing the CEIP to establish appropriate demand response and renewable energy targets.

- Q4a1: Should the public hearing be held to review the draft IRP versus the final IRP?
    - We recommend the Commission conduct a hearing of the DRAFT IRP and the FINAL IRP.
    - We support the Commission recommendation that there be a public hearing of the DRAFT IRP. This is a critically important point in the process for regulatory engagement. That hearing will provide important feedback that will encourage utilities to steer the last four months of IRP analysis to best align with consumer and government needs and objectives.
    - We recommend the Commission not abandon a hearing of the FINAL IRP. The Final IRP contains the CEAP which informs the CEIP, which the commission is required by CETA to "after hearing, must adopt, reject, or adopt with conditions, by order, interim targets for a clean energy implementation plan for each investor-owned utility". Review and acknowledgement of the FINAL IRP is an important regulatory step which guides the utility to create an adequate CEAP. The urgency of CETA does not permit an inadequate CEAP, leading to an inadequate CEIP, which would then wait for two (or four, if the Commission IRP frequency recommendation is enacted) years awaiting the next IRP cycle.
    - If the UTC is unable to conduct a FINAL IRP Hearing, the UTC should still require utilities to accept and respond to, on the utility website, public inputs and advisory group technical inputs on the FINAL IRP, fully explaining any rationale the utility used in the event any of these inputs are not included in the FINAL IRP analyses or document.

- Q4a2: Are there other times in the IRP process most beneficial to public engagement?
    - To ensure dialogue, and reduce the likelihood of continued parallel monologues, the UTC should require utilities to solicit IRP topics to be considered in the IRP workplan from members of the public and the advisory group two months before the utility proposes their IRP work plan.

- Q4b: How to synchronize public comment with the IRP, CEIP and CEAP?
    - It would be best if the CEIP is released and reviewed no later than two months following receipt of FINAL IRP public inputs and technical advisory group technical inputs.

- Q5: Should the IRP requirements of WAC 480-100-610 be modified to improve utilities flexibility in preparing a draft IRP?
    - No. All elements of a FINAL IRP should be included in the DRAFT IRP to assure an adequate public review of the product, which will also inform changes needed for the FINAL IRP.

- In some instances, utilities have asserted that responses to technical or public input concerns will be addressed in the FINAL IRP document. It is important that the rules seek to resolve all such action items at or before the DRAFT IRP hearing. This will give utilities additional time, if needed, to resolve any unresolved action items in time for the FINAL IRP document.

- Q6: Should the commission adopt a different policy from the current IRP acknowledgement letter approach? Why?
  - The Commission should consider revisions to the current IRP response process. The recommended changes and rationale are:
    - The relationship between the IRP and the CEIP should not absolve the Commission responsibility to review and take action on the IRP. The inherent complexities of the IRP are compounded by the schedules imposed by the Clean Energy Transformation Act. Since the CEIP is informed by the CEAP, which is contained in the IRP, Commission action on the IRP is an important "quality check" on the overall process. Rationale: If the IRP is not properly developed, the CEIP will not be properly developed. The CETA schedule does not allow mis-steps like this to develop. The rules should not enable them.
    - The Commission makes recommendations to the utility through the IRP acknowledgement letter. In some cases, the Commission asks specific questions of the utility regarding the IRP Document. In the event the utility fails to answer specific Commission questions in the following IRP Document, that IRP should automatically be not acknowledged and the utility directed to provide a revised IRP which answers the Commissions questions. Rationale: The regulatory authority of the Commission is not effective unless their IRP acknowledgement instructions are followed.
    - The Commission should conduct a Hearing any time the utility seeks to initiate a significant capital project that has not been specifically analyzed as an IRP scenario reviewed at an IRP Hearing. "Significant" should be determined through rulemaking, but any project that generates or transports more than 2% of the utilities total generation capacity should be considered significant. Rationale: The current approach to regulation of utility planning and resource acquisition practices more often than not allows capital project investment recovery because regulators are unwilling to test the financial community's response to total utility plant investment disallowance. Utility projects should never be allowed to proceed to such a point of financial brinksmanship in the absence of a UTC Hearing.

- Q7 – 10: Equitable distribution of benefits – not answered.

- Q11: Should the commission include additional narrative description for WAC 480-100-610(11) or are the subsections (a) through (f) adequate?

- The greenhouse gas emissions of the utility portfolio over time will determine compliance with CETA. The rules should require utilities to report on these specific CETA transition attributes:
  - CETA transition timeline – will the utility comply and on what schedule?
  - What is the CETA transition plan?
    - What assets are acquired?
    - What assets are retired?
    - On what schedule?
  - What is the CETA transition cost / benefit?
    - To ratepayers, as measured in capital expenses
    - Is the CETA transition plan delayed due to the cost of compliance requirement?
    - To the environment, as measured in greenhouse gas emissions
  - What are the CETA transition risks and opportunities?
    - Cost risks and opportunities
    - Technology risks and opportunities
    - Market / Resource capacity risks and opportunities
      - Transmission
      - Renewable energy
      - Energy efficiency
      - Demand response
      - Storage
- Subsections (a) through (f) do not allow regulators to adequately address utility portfolio transition plans to comply with the CETA transition timeline and its associated risks. We suggest the following modifications:
  - (a) Achieves requirements in RCW 19.405.030, RCW 19.405.040, and RCW 19.405.050 at the lowest reasonable costs, considering risk, on what timeline, showing a schedule of portfolio assets acquired and retired, and identifying if the transition plan is delayed due to the cost of compliance requirement;

- (b) Includes all cost-effective, reliable, and feasible conservation and efficiency resources, and demand response, using the methodology established in RCW 19.285.040, if appropriate, clearly identifying portfolio options evaluated, explaining which were accepted, which were rejected and which are still under consideration;
- (c) Considers acquisition of new or existing renewable resources and relies on renewable resources and energy storage in the acquisition of new or existing renewable resources, insofar as doing so is at the lowest reasonable cost, considering risks;

- To address costs, we recommend adding:
  - (g) Identifies cost and cost risks, by (i) including portfolio transition capital costs and a narrative statement of capital cost risks, (ii) identifying the major capital cost drivers and cost risks and opportunities, (iii) including the greenhouse gas emission profile associated with the transition plan, and its associated social cost of greenhouse gas costs and (iv) including the High Impact social cost of greenhouse gas costs associated with the transition plan.

  - This addition will cause corresponding modification to:
    - WAC 480-100-600, Definitions:
      - "High Impact Social cost of greenhouse gas emissions" is the inflation-adjusted

costs of greenhouse gas emissions resulting from the generation of electricity, as required by RCW 80.28.405, and published on the commission's website.

- Corresponding changes to the WAC associated with RCW 80.28.405:
  - Clean energy action plan—Greenhouse gas emissions—Calculation of cost.
  - For the purposes of chapter 288, Laws of 2019, the social cost of greenhouse gas emissions resulting from the generation of electricity, including the effect of emissions, is equal to the cost per metric ton of carbon dioxide equivalent emissions, using the two and one-half percent discount rate, listed in table 2, technical support document: Technical update of the social cost of carbon for regulatory impact analysis under Executive Order No. 12866, published by the interagency working group on social cost of greenhouse gases of the United States government, August 2016.
  - The "High Impact cost of greenhouse gas emissions" data is listed in column 4, table 2, technical support document: Technical update of the social cost of carbon for regulatory impact analysis under Executive Order No. 12866, published by the interagency working group on social cost of greenhouse gases of the United States government, August 2016.
  - The commission must adjust the costs established in this section to reflect the effect of inflation.

- To address additional portfolio transition risks and opportunities we recommend adding:
  - (h) Addresses technology risks and opportunities by including (i) the list of technology solutions evaluated to enable the CETA portfolio transition, (ii) which of these technologies are suitably mature to include in the IRP, (iii) which are likely to be suitably mature over the CETA transition timeline and therefore still under consideration for future IRPs and (iv) which are unlikely to be mature enough over the CETA transition timeline and therefore no longer being considered.
  - (i) Address market risks and opportunities by including (i) the list of market solutions evaluated to enable the CETA portfolio transition, (ii) which of these

market solutions are suitably available to include in the IRP, (iii) which are likely to be suitably available over the CETA transition timeline and therefore still under consideration for future IRPs and (iv) which are unlikely to be suitably available over the CETA transition timeline and therefore no longer being considered.

- (j) Address resource capacity risks and opportunities by including (i) the current transmission capacity and a 20-year transmission capacity projection, (ii) the current renewable energy capacity and a 20-year renewable energy capacity projection, (iii) the current energy efficiency capacity and a 20-year energy efficiency capacity projection, (iv) the current demand response capacity and a 20-year demand response capacity projection and (v) the current storage capacity and a 20-year storage capacity projection

  - Since:
    - "The legislature finds that Washington must address the impacts of climate change by leading the transition to a clean energy economy."[1]
    - "Absent significant and swift reductions in greenhouse gas emissions, climate change poses immediate significant threats to our economy, health, safety and national security."[2]
    - "The legislature declares that utilities in the state have an important role to play in this transition, and must be fully empowered, through regulatory tools and incentives, to achieve the goals of this policy."[3]
    - We suggest adding:
      - (11)(k) Complies with all city and county approved clean energy policy goals and timelines within their service region.
      - (11)(l) Complies with all Washington State approved clean energy policy goals and timelines.

- Q12: Should the commission provide more specific guidance on how a utility incorporates the social cost of greenhouse gases (see WAC 480-100-610(6) and (12)(j))? Why?
  - The Commission should provide explicit guidance on how the social cost of greenhouse gases are applied to utility analyses in the IRP. This is necessary due to the significant amount of discussion surrounding the social cost of greenhouse gas emissions during the 2019 IRP process, the complexity of the IRP modeling process, and in some specific instances a lack of utility compliance with social cost of greenhouse gas emissions even in the face of existing statute (RCW 19.280.020(11)).
  - The social cost of greenhouse gases should be applied, as a cost adder, to:
    - All IRP analyses that support utility facility acquisition or decommission decisions,
    - All IRP analyses associated with electricity dispatch modeling.

[1] Clean Energy Transformation Act, Section 1(1)

[2] Ibid, Section 1(3)

[3] Ibid, Section 1(5)

        - Note: Additional social cost of carbon modeling inputs may follow the scheduled January 16 social cost of carbon workshop.
    - As previously stated, the Commission should instruct utilities to conduct and make the results clearly evident in the IRP document at least one sensitivity study using the High Impact social cost of greenhouse gases, as intended by the authors of the technical support document: Technical update of the social cost of carbon for regulatory impact analysis under Executive Order No. 12866, published by the interagency working group on social cost of greenhouse gases of the United States government, August 2016, currently cited in RCW 80.28.410, to allow policymakers to assess lower-probability but higher-impact outcomes from climate change.

- Q13: Resource adequacy – not answered.

- Q14: Demand response and load management – not answered.

- Q15: Is it necessary and appropriate for the utility to identify proposed four-year CEIP targets in the CEAP?
    - It is appropriate for utilities to establish, in the 10-year CEAP, the CETA transition baseline / plan against which 4-year CEIP targets (for energy efficiency, demand response, renewable energy and the schedule by which the utility will achieve greenhouse gas neutral status) will be determined.
    - It is important that the CEIP clearly reference the IRP (including the CEAP) as the basis for these targets, with a full explain their rationale, including both risks and opportunities.

Additional inputs based on review of the Draft Rules:

Note: For the sake of completion, the below inputs incorporate some of the content included above.

WAC 480-100-600 comments

- We appreciate the Commission language to address public participation by introducing the "consult" level of interaction from the International Association of Public Participation. Upon further consideration, we propose using the "involve" level of interaction, which would modify the draft rules as shown below:
    - "Advisory group" means a group composed of utility representatives, commission staff, the public counsel division of the office of the Washington state attorney general, and any member of the public expressing a desire

to be involved in the integrated resource plan (IRP) process, which the utility convenes at regular intervals during the planning process, and with which the utility ~~consults~~ involves in public meetings.

- "~~Consults~~Involves" means to ~~listen to and acknowledge~~ ensure that your concerns are directly reflected in the alternatives developed, and provide feedback on how public input influenced a decision.

- We recommend Demand Response, aggregation and Transmission capability be explicitly added to the definition of Integrated Resource Plan:
  - "Integrated resource plan" means an analysis describing the mix of conservation and efficiency, generation, energy aggregation services, distributed energy resources, demand response, transmission and delivery system infrastructure that will meet current and future resource needs and the requirements of chapters 19.280 and 19.405 RCW at the lowest reasonable cost to the utility and its customers and is clean, affordable, reliable, and equitably distributed.

- We recommend modifying the definition of Lowest Reasonable Cost to include social cost of carbon and more explicitly define emissions:

- "Lowest reasonable cost" means the lowest cost mix of resources determined through a detailed and consistent analysis of a wide range of commercially available resources. At a minimum, this analysis must consider resource cost, market-volatility risks, demand-side resource uncertainties, resource dispatchability, resource effect on system operation, the risks imposed on the utility and its customers, public policies regarding resource preference adopted by Washington state or the federal government, the social cost of carbon and the cost of risks associated with environmental effects, including emissions of carbon dioxide equivalent of greenhouse gasses.

- Expanding the definition of renewable resource allows important non-fossil fuels to be included in the Clean Energy Transformation. It is important to entitle renewable hydrogen and all fuels derived from renewable hydrogen afforded any and all incentives, tax advantages, or other favorable treatment afforded to other renewable resources. These non-fossil fuels can play an important role in decarbonizing many challenging industrial and commercial processes.
  - "Renewable resource" means: (a) Water; (b) wind; (c) solar energy; (d) geothermal energy; (e) renewable natural gas; (f)renewable hydrogen and fuels synthesized

using renewable hydrogen without fossil-based inputs; (g) wave, ocean, or tidal power; (h) biodiesel fuel that is not derived from crops raised on land cleared from old growth or first growth forests; or (i) biomass energy.

WAC 480-100-605 comments

- We recommend revising the language in WAC 480-100-605 to incorporate proposed additions to the Integrated Resource Plan definition above:
    - **Purpose of integrated resource planning.** Consistent with chapters 80.28, 19.280, and 19.405 RCW, each electric utility regulated by the commission has the responsibility to identify and meet its resource needs with the lowest reasonable cost mix of conservation and efficiency, generation, energy aggregation services, distributed energy resources, demand response, transmission and delivery system investments to ensure a utility provides energy to its customers that is clean, affordable, reliable, and equitably distributed.

WAC 480-100-610 comments

- We suggest the Commission provide specific instructions to utilities regarding acquisition of demand-side aggregation resources, as would be enabled by the following modification:

- (2) Demand-side resources. The (integrated resource) plan must include assessments of load management that is cost-effective and commercially available. These assessments must include:
- (a) Currently employed and new policies and programs needed to obtain all cost-effective conservation and efficiency and load management improvements, including the ten-year conservation potential used in calculating a biennial conservation target to be filed in the biennial conservation plan consistent with chapter 480-109 WAC;
- (b) Currently employed and new policies and programs needed to obtain all demand response at the lowest reasonable cost; including aggregated demand response resources, and

- Given the critical need to Transform the energy sector, it is critical to assess both new and existing energy generation resources, which can be explicitly required by:
  - (6) Resource Evaluation. The plan must include a comparative evaluation of all new and existing identified resources that considers resource costs,

risks, including those associated with environmental effects and the social cost of greenhouse gas emissions, and benefits that accrue to the utility, to customers, and program participants when applicable, including transmission and distribution delivery costs;; and public policies regarding resource preference adopted by Washington state or the federal government.

- The requirement under the Clean Energy Transformation Act, to incorporate the social cost of greenhouse gas emissions as defined in RCW 80.28.405, carries a derived requirement as stated in the Technical update of the social cost of carbon for regulatory impact analysis under Executive Order No. 12866, published by the interagency working group on social cost of greenhouse gases of the United States government, August 2016:
    - "…there is extensive evidence in the scientific and economic literature on the potential for lower-probability, but higher-impact outcomes from climate change, which would be particularly harmful to society and thus ***relevant to the public and policymakers***. The fourth value is thus included to represent the marginal damages associated with these lower-probability, higher-impact outcomes." (emphasis added)
    - As such, we recommend adding new sub-section:
        - (10)(a) The utilities integrated resource plan analyses must include at least one sensitivity that contains the High Impact social cost of greenhouse gas emissions, and to explicitly include the results of this sensitivity in the integrated resource plan to allow policymakers to assess lower-probability but higher-impact outcomes from climate change.

        - This addition will cause corresponding modification to:
            - WAC 480-100-600, Definitions:
                - "High Impact Social cost of greenhouse gas emissions" is the inflation-adjusted

costs of greenhouse gas emissions resulting from the generation of electricity, as required by RCW 80.28.405, and published on the commission's website.

- Corresponding changes to the WAC associated with RCW 80.28.405:
  - Clean energy action plan—Greenhouse gas emissions—Calculation of cost.
  - For the purposes of chapter 288, Laws of 2019, the social cost of greenhouse gas emissions resulting from the generation of electricity, including the effect of emissions, is equal to the cost per metric ton of carbon dioxide equivalent emissions, using the two and one-half percent discount rate, listed in table 2, technical support document: Technical update of the social cost of carbon for regulatory impact analysis under Executive Order No. 12866, published by the interagency working group on social cost of greenhouse gases of the United States government, August 2016.
  - The "High Impact cost of greenhouse gas emissions" data is listed in column 4, table 2, technical support document: Technical update of the social cost of carbon for regulatory impact analysis under Executive Order No. 12866, published by the interagency working group on social cost of greenhouse gases of the United States government, August 2016.
  - The commission must adjust the costs established in this section to reflect the effect of inflation.

- To aid utility compliance with their obligations imposed by the legislature in the Clean Energy Transformation Act – "The legislature declares that utilities in the state have an important role to play in this (clean energy) transition, and must be fully empowered, through regulatory tools and incentives, to achieve the goals of this (clean energy transformation act) policy", we recommend adding subsections:

  - (10)(b) The utilities integrated resource plan analyses must include at least one scenario that constrains the net greenhouse gas emission profile to comply with all Washington State approved clean energy policy goals and timelines.

- Subsections (11)(a) through (11)(f) do not allow regulators to adequately address utility portfolio transition plans to comply with the CETA transition timeline and its associated risks. We suggest the following modifications:

    - (a) Achieves requirements in RCW 19.405.030, RCW 19.405.040, and RCW 19.405.050 at the lowest reasonable costs, considering risk, on what timeline, showing a schedule of portfolio assets acquired and retired;
    - (b) Includes all cost-effective, reliable, and feasible conservation and efficiency resources, and demand response, using the methodology established in RCW 19.285.040, if appropriate, clearly identifying portfolio options evaluated, explaining which were accepted, which were rejected and which are still under consideration;
    - (c) Considers acquisition of new or existing renewable resources and relies on renewable resources and energy storage in the acquisition of new or existing renewable resources, insofar as doing so is at the lowest reasonable cost, considering risks;

    - To address costs, we recommend adding:
        - (g) Identifies cost and cost risks, by (i) including portfolio transition capital costs and a narrative statement of capital cost risks, (ii) identifying the major capital cost drivers and cost risks and opportunities, (iii) including the greenhouse gas emission profile

associated with the transition plan, and its associated social cost of greenhouse gas costs and (iv) including the High Impact social cost of greenhouse gas costs associated with the transition plan.

- To address additional portfolio transition risks and opportunities we recommend adding:
  - (h) Addresses technology risks and opportunities by including (i) the list of technology solutions evaluated to enable the CETA portfolio transition, (ii) which of these technologies are suitably mature to include in the IRP, (iii) which are likely to be suitably mature over the CETA transition timeline and therefore still under consideration for future IRPs and (iv) which are unlikely to be mature enough over the CETA transition timeline and therefore no longer being considered.
  - (i) Address market risks and opportunities by including (i) the list of market solutions evaluated to enable the CETA portfolio transition, (ii) which of these market solutions are suitably available to include in the IRP, (iii) which are likely to be suitably available over the CETA transition timeline and therefore still under consideration for future IRPs and (iv) which are unlikely to be suitably available over the CETA transition timeline and therefore no longer being considered.
  - (j) Address resource capacity risks and opportunities by including (i) the current transmission capacity and a 20-year transmission capacity projection, (ii) the current renewable energy capacity and a 20-year renewable energy capacity projection, (iii) the current energy efficiency capacity and a 20-year energy efficiency capacity projection, (iv) the current demand response capacity and a 20-year demand response capacity projection and (v) the current storage capacity and a 20-year storage capacity projection
- Since:
  - "The legislature finds that Washington must address the impacts of climate change by leading the transition to a clean energy economy."[4]
  - "Absent significant and swift reductions in greenhouse gas emissions, climate change poses immediate significant threats to our economy, health, safety and national security."[5]
  - "The legislature declares that utilities in the state have an important role to play in this transition, and must be fully empowered, through regulatory tools and incentives, to achieve the goals of this policy."[6]
  - We suggest adding:
    - (11)(k) Complies with all city and county approved clean energy policy goals and timelines within their service region.
    - (11)(l) Complies with all Washington State approved clean energy policy goals and timelines.

[4] Clean Energy Transformation Act, Section 1(1)

[5] Ibid, Section 1(3)

[6] Ibid, Section 1(5)

- The carbon content of purchased electricity is of critical importance to achieving CETA objectives. Please include new sub-section WAC 480-100-610(14)(d) to increase transparency of purchased electricity agreements:
    - New sub-section 480-100-610(14)(d): The IRP must contain a schedule of purchased electricity contracts, showing (i) the megawatt hour capacity of each contract, (ii) the contract expiration date, and (iii) the greenhouse gas emissions, stated in CO2 equivalent, associated with each contract.

- We applaud the Commission's emphasis on utility summary public participation inputs in the Integrated Resource Plan. We recommend modification of WAC 480-100-610 (16) to include technical inputs from the advisory group members and to include utility rationale for not incorporating technical or public inputs:
    - (16) The utility must provide a summary of advisory group technical inputs received during development of the integrated resource plan, public comments received on the draft integrated resource plan and the utility's responses, including whether or not issues raised in the technical inputs and comments were addressed and incorporated into the final plan. For any technical or public inputs not incorporated into the final plan, the utility will provide its rationale for not doing so. The matrix may be included as an appendix to the final plan.

WAC 480-100-615 comments

- We take exception with the recommendation that the integrated resource plan be developed and made the subject of a hearing and a UTC acknowledgement letter every four years instead of the current practice of every two years.

- We completely agree with the motivation expressed by the UTC for updating its IRP rules in Docket U-161024 in 2016. Rapid technological advancements in the electric industry, the legislated utility transition schedule of the Clean Energy Transformation Act and the dire schedule warnings of the Intergovernmental Panel on Climate Change all combine to demand a more frequent evaluation of utilities integrated resource plans, not a less frequent evaluation. Changing the frequency of integrated resource plans at this time, before the transformation is even underway, is severely ill advised.

- We recommend the following item be added to WAC 480-100-615 (1) Work Plan:
  - (h) The proposed method the utility will use to evaluate advisory group technical inputs, including the approach used to achieve consensus on incorporation of advisory group technical inputs in the integrated resource plan analyses.

- We recommend the following item be added to WAC 480-100-615:
  - New sub-section (4) Not later than seventeen months prior to the due date of its integrated resource plan, the utility must invite advisory group members to identify significant topics that will be discussed during the integrated resource plan period.

- We note that WAC 480-100-615(1)(g) references "subsection (5)(a) of this section", but WAC 480-100-615 does not include a subsection (5).

WAC 480-100-620 comments

- We recommend aligning the language of WAC 480-100-620 with prior recommendations to use the "involve" level of interaction between utilities, advisory group members and the public:

  - **Public participation.** ~~Consultations~~ Involvement of ~~with~~ commission staff, advisory group members and the public, through public participation are essential to the development of an effective integrated resource plan and two-year progress report. The utility must inform, consult, and involve stakeholders in the development of

its integrated resource plan and its two-year progress report.

- (1) The utility must involve and consult with stakeholders in developing the timing and extent of meaningful and inclusive public participation identified in the work plan for both the integrated resource plan and the two-year progress report. As part of its work plan, the utility must provide a link to its website which must be accessible to the public. The website must be updated in a timely manner and contain the following information: