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To: Oregon Clean Energy Legislators

From: Brittany Andrus, AndrusPDX Consulting

Re: **100% Clean Power Policy Driver Options Analysis: Rulemaking and Implementation Timeline Implications** for Emissions-Based vs. RPS-expansion-Based Power Decarbonization Policy Approaches[1]

Executive Summary

Oregon legislators are considering two distinct statutory approaches to decarbonizing Oregon's electric power sector: 1) a new emissions-driven approach, creating new-to-Oregon statute and regulatory implementations; and 2) an RPS-expansion approach, building on existing statute by accelerating procurement mandate milestones and adding interim higher frequency mandate levels.

Each approach has fundamentally different implementation paths, implicating different agencies and creating different agency obligations, rulemaking requirements, policy complexity, FTEs, and outcomes. The two approaches therefore result in materially different timelines to achieve intended outcomes and benefits, as well as costs and regulatory burdens for initial and ongoing implementation.

This memo examines differential outcomes and timeline implications resulting from each primary policy driver, along with commentary on related surrounding 'adder' policies, yielding an estimated ***a 5-7* year difference** in the timeframes for realizing initial benefits, summarized as follows:

1) **Emissions-Driven Approach** (HB 2021/HB 2995): Consists of an all-new statute and regulatory standard, regulating emissions, requiring foundational rulemakings by three agencies (DOE, PUC and DEQ) to define the program and establish the enforcement mechanism. These rulemakings are separate from and far more complex than existing rules requiring electricity suppliers to report emissions to DEQ.[2] Policymakers can expect relatively lengthy rulemakings due to complexities inherent in interagency coordination, and the likely broad stakeholder participation from many state and regional (and potentially extra-regional) groups and interests.

   After these multi-year foundational rulemakings are completed, additional IOU procurement and implementation, subject as always to OPUC oversight and processes, may proceed. These activities are, as always, subject to timing overlays of IOU multi-year integrated resource planning and RFP cycles. Initial results for the State of Oregon will be uncertain for several years, and any assessment of success/failure will not be possible until after these processes conclude their first cycle.

   Additional features of HB 2995 include social objectives, labor standards, and other subjective and objective criteria. Depending on final bill language, these requirements would add further incremental rulemaking layers and interactions, requiring integration into

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[1] This memo's analysis focuses primarily on the primary regulator driver of decarbonization. HB 2021, at time of memo publications, purportedly also includes a number of additional provisions beyond the focus of this memo related to Direct Access, new utility billing programs ('Customer Supported Renewables'), exceptions for utility performance, and implementation plans that would generally be additive to the additional rulemaking processes for an emissions-based program as analyzed here.

[2] Department of Environmental Quality, Chapter 340, Division 215, Oregon Greenhouse Gas Reporting Program.

longstanding OPUC and IOU least-cost, least-risk planning processes, and likely resulting in additional delay before procurement commences, particularly where new subjective criteria will change RFP evaluation methodologies and require material public input (HB 2021 social and labor provisions remained in flux at time of memo publication).

Net Result: Decarbonization and economic development benefits will likely be deferred 5-7 years[3] after the completion of the predicate 3-6 year rulemaking processes, and further two years of rulemaking-contingent IRP and RFP procurement processes thereafter (plus facility construction). Therefore the t*imeline to incremental beneficial change (relative to existing RPS statute) is likely delayed to the 2026-28 timeframe (or later)[4].* Additionally, there are implications to having delayed policy clarity (i.e. market signal clarity). This results in deferred investment signals for generation and transmission solution development (transmission capacity increases require 10-15 year lead time), and creates a high degrees of outcome risks.

2) RPS-Expansion approach (HB 3180[5]): Increasing the utility procurement 'volume' requirements of an existing well-understood statute, for which rulemakings and implementation are underway and nearly complete, and accelerating al interim annual or biannual milestones entails little, if any, new regulatory obligation and involving little or no implementation delay.

Net Result: *Utility procurement under existing OPUC rulemakings and processes may continue immediately without delay, based on higher MW standards.* The t*imeline to incremental decarbonization and economic development: 18-36 months (2022-2023), plus steady progress benefits during 2020s.* Market signals are clear and timely, with proven underlying statutory concepts and clear mandates, leading to a negligible degree of decarbonization outcome risk.

Additional policy adders in HB 3180, to enhance Oregon economic and reliability/resiliency outcomes, e.g. for in-state/in-region siting preferences and community-based renewables do not materially, if at all, alter the ability of an RPS approach to proceed promptly, based on clear safe harbor provisions which can easily be applied with clarity to existing procurement.

Summary: As might reasonably be expected, expansion of an existing statutory approach—via a RPS expansion—for which rulemakings have largely been completed, and the OPUC and utilities already engage routinely in RPS-incorporated Integrated Resource Planning (IRP) and RFP procurement processes—is substantially more timeline-efficient to achieve decarbonization, requiring almost no new

[3] Due to timeline IRP and implementation plan process, RFPs usually occur in the 1-3 year period after IRP completion (an approximately two-year process to produce the IRP and obtain Commission acknowledgment), procuring from new facilities which might be constructed in the 2-4 years after RFP process is completed. The first IRPs to incorporate new rules would (in practice) be staggered by some TBD period after completion of applicable rulemakings, as utilities run them on back-to-back 2-3 year cycles, and their contents will depend materially on rulemaking outcomes. However, it is hard to know how the completion of rulemakings would relate to the regular IRP cycles (they could end up back to back, seamlessly, if fortunate; or could end up a couple years out of sync, if an IRP cycle was nearly done, perhaps triggering a restart to include new rules).

[4] Based on initial milestone by 2030 requiring an 80% emissions reduction; 90% by 2035; 100% by 2040. It is unclear as to whether any incremental 2025 milestone, in addition to the 2030 milestone of 80%, could be achieved given the requisite rulemakings, IRPs, RFPs, and construction lead times.

[5] Based on HB 3180 -1 Amendment, which 1) keeps RPS increases 90% by 2035, 100% by 2050; keeps In-State/Region 50% siting preference for resiliency; and keeps enhanced Community Based Renewables with expanded eligibility criteria; and keeps enhanced planning and alt-solutions evaluation (none of which require new rulemaking to proceed, given statutory language proposed and safe-harbor criteria; and 2) removes fossil phase out, storage standard, PPC and other new statutory provisions requiring pre-procurement rulemakings.

process as compared to a new, ground-up approach, involving multiple agencies and new statute and rulemakings.

An emission-based approach will have disproportionately higher implementation (FTE) costs, implementation timelines (delays), uncertainties, and deferred outcomes (and which burdens become compounded with additional layers of related policies discussed for HB 2995 that would drive further rulemakings), as well as delayed clarity to intended policy outcomes, and whether such are indeed achieved. New statutory concepts never-before-implemented also hold presently unknowable and/or undefined risks to regulatory off-ramps and unintended consequences which may subvert policy-makers' intentions, but which would not be known for several years.

RPS-only approach allows immediate progress (2022-24). Emissions-based delays incremental decarbonization progress to [2026-2028+].

Additional Issues: Unclear as to timeline and process for flow through to PURPA/QF avoided costs.

Timeline Summary			
Approach	**Agencies**	**Timelines**	**New Decarbonization Begins:**
Emissions-based HB 2995; HB 2021	ODOE, DEQ, & OPUC (perhaps also Bureau of Labor & Industries)	3-7 years for rulemakings; 1-3 years for IRP/RFP 2-4 years for construction	2026-28+
RPS Expansion HB 3180	OPUC	0 years for rulemakings 0-2 years for IRP/RFP[6] 1-4 years for construction	2022-24
RPS Expansion + Oregon-Benefits Enhancements HB 3180	OPUC	Same as RPS-only, per above. Some new rulemakings, but clear criteria & select safe-harbor clarity provisions allow substantial progress w/o delay under existing processes.	Same. 2022-24

SUPPORTING ANALYSIS

Conceptual Overview

Each of the two pathways to clean electricity in Oregon requires a set of agency rulemakings to be fully implemented, but the ability to accelerate decarbonization, i.e. difference in achievable timelines to incremental change, is very different:

- **Emissions-based path** requires a not only initial major rulemaking(s) to define the foundational mechanism, but then subsequent rulemakings on top of those, as well as related cross-agency

[6] Pacificorp current RFP underway has 11,000 MW of already "shortlisted" renewable generation projects for pre-2024 on-line dates (including 2,800 MW Oregon-sited), with 7,000 MW classified as beneficial to ratepayers economically (including 400 MW of Oregon-sited), for which they can immediately proceed with additional procurement via processes underway. PGE is, per public comments, planning a 2021-22 RFP, based on 2020-21 IRP Update underway. Additionally, QF/PURPA projects can receive projects faster, proceed in advance of these timelines with both IOUs.

rulemakings and coordination, involving DEQ, ODOE, OPUC and (if per certain additional HB 2955 provisions) Bureau of Labor & Industries, as follows:

- New Rulemakings
  - 1) New Foundational Mechanism(s) Rulemaking(s) – Part 1 (DEQ, ODOE, OPUC, BLI)
    - While utilities do currently report emissions to the Department of Environmental Quality, a cross-agency, high-visibility rulemaking to define the qualifying nonemitting electricity sources for compliance with the statute must occur first, in addition to internal individual agency processes to prepare for those.
    - Because multiple post-SB 1547 (2016 RPS) OPUC rulemakings are still underway to work out implementation details, there is no basis to assume a new foundational emissions mechanism can be resolved in fewer than 3-4 years.
  - 2) Then New/Amended Additional Implementation Rulemakings – Part 2+ (multiple) (DEQ, ODOE, OPUC, BLI). As described below, once foundational mechanisms are established, numerous other rulemakings follow, some of which are single agency, some of which are multiple agencies.
- **Then, IRPs and RFPs based on new rules:** After rulemakings are completed, the IOUs would then incorporate the new procurement standards into the next cycle of biannual IRP and PUC-filed clean energy implementation plans, subject to the associated 1-2 year public and PUC review process, which is then followed afterwards (following 1-2 years) by a subsequent

- **RPS-based path** mechanisms are well-established, and related rulemakings, *if any are even needed*, depending on surrounding/augmenting bill features—can proceed in parallel with implementation.
  - The new increased RPS statute language will inform, but not upend, rulemakings currently completed or (in some cases) still underway at the PUC such as those for calculating incremental costs (AR 610), implementing small scale community based renewable projects (AR 622), RPS planning process and reports (AR 616), and renewable energy certificates issues (AR 617).
  - Already-established utility integrated resource plans (IRPs) and procurement mechanisms (RFPs) can be leveraged, with mere increases of procurement targets, within the existing Least-Cost Best Fit (LCBF) OPUC and IOU methodologies, to meet increased RPS targets in the near-term. (This is better than hypothetical in practice, given PacifiCorp current 2020-21 RFP's current short-list contains 1000s of MW of ready-to-go renewables; and PGE already planning its 2021-22 RFP).

Below is a high-level assessment of implementation risk, estimated timeframes and FTE resources for rulemakings and interagency coordination under emissions-based (HB 2021/2995) and RPS-based (HB 3180).

Risks

In addition to above, emissions-based approach (i.e. HB 2021/2995) also requires multiple inter-agency processes that will likely require significant additional time for scoping, coordination, and joint rulemakings (estimate 18-24+ months added), e.g.:

- Each agency's internal assessments and analysis (ODOE, DEQ, OPUC) prior to engaging with other agencies; then:
- PUC in coordination with Department of Energy (ODOE) to adopt standards for sources of electricity to be considered qualifying nonemitting sources
- PUC in coordination with Bureau of Labor and Industries (L&I) to adopt rules to administer and enforce labor standards provisions for IOUs and energy service suppliers, and develop guidance for use of project labor agreements.
- Not stated but will be required: Extensive PUC coordination with the Department of Environmental Quality (DEQ) to merge existing emissions reporting with enhanced implementation plans and implementation reports from utilities to the PUC.

Both HB 2021/2995 and HB 3180 require changes to utility planning and reporting processes. However, HB 3180 does not require changes to the existing emissions reporting process to DEQ, nor require those changes prior to IOUs commencing additional higher levels of renewables procurement.

FTE

With respect to additional agency FTEs to implement these statutes, impacts would be in two parts, rulemaking implementation, then monitoring and enforcement.

Initial Rulemaking resources: Incremental FTEs required:

Emissions/HB 2021/2995: 0.5-2 FTE per agency, 2-4 total (DOE, PUC, DEQ, L&I)

RPS/HB 3180: OPUC only, 0-1 FTE (0 if just RPS)

Ongoing monitoring and enforcement

HB 2995 emissions and labor standards will likely require 2-4 additional FTE across the PUC, Labor & Industries, and ODOE for a minimum of two years, likely longer. (HB 2021 provisions appear to still be in flux at time of memo publication.)

HB 3180 / RPS

0, same RECs/OPUC mechanism remains current

0-1, increased reporting and monitoring for/if enhanced planning features to facilitate review and monitoring of those plans and reports.

((summary timeline chart on following page))

SUMMARY CHART OF RULEMAKINGS TO IMPLEMENT:

Emissions Based Approach (HB 2021/HB 2995) *All required prior to incremental procurement under emissions approach*				
Section HB2995[7]	**Scope**	**Agencies**	**Rulemaking Duration**	**Basis for Assessment**
3(2)(a)	Adopt by rule standards for qualifying nonemitting electricity sources	PUC, ODOE	18-24 months	ODOE: SB 1547 effective March 2016; temporary rule filed July 2017; revised rule filed December 2017. Participation by multiple agencies may lengthen schedule. Chapter 330, Division 160, 0015
3(3)(b)	Establish by rule requirements and procedures for calculations to determine compliance, whether cost cap is exceeded.	PUC	24+ months	AR 610 opened April 2017 as a broad SB 1547 RPS rulemaking; April 2018 scope was limited to incremental cost; docket is still open
3(3)(c)	Establish limits on incremental cost of compliance for energy service suppliers	PUC	24+ months	See AR 610
4(3)(a)	Adopt rules to administer and enforce labor provisions	PUC, L&I	Unknown	No PUC precedent, so potentially lengthy
4(3)(b)	Develop guidance for use of project labor agreements, and other labor requirements implementation	PUC, L&I	Unknown	No PUC precedent, so potentially lengthy
5(4)(a)	Adopt rules establishing requirements for the content of implementation plans		12-24 months	Modifications to current rules: Chapter 860, Division 83
5(4)(b)	Adopt rules establishing procedure for acknowledgment of implementation plans, including provisions for public comment		12 months	Modifications to current rules: Chapter 860, Division 83
5(4)(c)	Adopt rules providing for integration of an implementation plan with integrated resource planning guidelines established by the commission for the purpose of planning for least-cost, least-risk acquisition of resources		Up to 36 months	No precedent. Existing rules for RPS implementation were adopted without changing IRP guidelines or rules. Chapter 860, Division 27, 0400

[7] Per initial HB 2995 as-filed. For HB 2021.1, Section [1-14] pertain to emissions regulations, utility implementation, exceptions to compliance, and cost caps.

5(4)(d)	Adopt rules providing for the evaluation of competitive bidding processes that allow for diverse ownership of eligible nonemitting sources that generate clean electricity		24 months	PUC Docket No. AR 600, opened May 2016: Opened to implement SB 1547 regarding allowances for diverse ownership of renewable energy resources to meet increased RPS requirements; rules adopted were drawn from existing guidelines (Docket No. 1182); August 2018 rules filed with Secretary of State (27 months). Chapter 860, Division 89
6(3)	May by rule establish requirements for compliance reports		None; optional	Current rules: Chapter 860, Division 83
	Additional HB 2021 Sections Not Covered Here, per footnote			
HB 3180 – RPS-Increase-Based Approach * *Not required to proceed with additional renewable generation procurement under higher RPS, CBRS, and in-state/50%*				
Section HB3180	**Scope**	**Agency**	**Rulemaking Duration**	**Basis for Assessment**
	RPS "Teeth": Adopt by rule standards and procedures for imposing penalties.	PUC	12-18 months*	No clear precedent; would determine size of penalties needed to ensure utility compliance with RPS and CBRS.
	RPS Increase	PUC	4-8 months*	Only for change in cost cap; otherwise not required.
	Integrated clean energy implementation planning		12-36 months*	Not required to continue procurement under RPS and other statutes. Will eventually inform future IOU reporting on RPS compliance status and alt-solutions evaluation, to support OPUC in regulatory oversight role. No precedent. Existing rules for RPS implementation were adopted without changing IRP guidelines or rules. Assume specificity in HB 3180 language will result in a tightly focused proceeding.
	50% Resiliency/Local Requirement	PUC	0-18 months*	In addition to clear safe harbor criteria (such as connecting to OR utility or BPA system w/in 50-miles of Oregon), which allow procurement to proceed w/o rulemakings, PUC might adopt rules for additional qualifying criteria that support resiliency.

	Enhanced Community-Based Renewables	PUC	0-18* months	In addition to clear safe harbor criteria (such as connecting to OR utility or BPA system w/in 50-miles of Oregon), which allow procurement to proceed w/o rulemakings, PUC might adopt rules for additional qualifying criteria that support resiliency.
	PPA profits/recovery for IOUs	PUC	0, or 12-18 months*	Not required for RPS approach; including for reference/completeness.
	Performance Ratemaking	PUC	0, or 12-36 months*	Not required for RPS approach; including for reference/completeness.