

January 26, 2010

California Environmental Protection Agency Air Resources Board

Comments on the Second Public Workshop for the Renewable Electricity Standard

RE: Technical Feasibility Analysis

Dear ARB Staff:

The FIT Coalition is a policy-driven organization whose members are passionate about renewable energy and its critical role in California's low-carbon future. Our extensive experience, ongoing research, and active policy participation enable the FIT Coalition to offer policy designs that will allow the State of California to achieve its renewable energy mandates via a predictable, low-risk, and cost-effective pathway.

The FIT Coalition is confident that a successful 33%-by-2020 program must focus on the market segment with the most potential to scale renewable energy generation in a timely fashion: Wholesale Distributed Generation (WDG). In addition, the FIT Coalition supports the formal recommendation of the California Energy Commission (CEC) to implement the most successful policy mechanism in the world for stimulating the WDG market: a comprehensive, 20MW-and-under, cost-based, standard must-take Feed-In-Tariff (FIT).

As the ARB considers the availability and potential development of renewable resources, the FIT Coalition suggests that staff thoroughly analyze and consider WDG as a primary method for meeting the 33% Renewable Electricity Standard (RES).

With respect to assessing the 33% RES under different load variations, any analysis should consider a high WDG case. In a high WDG scenario, much of the state's energy is generated and integrated with the grid at the distribution level, and can be counted toward the 33% RES case without the need for added transmission build-out. This is a fundamentally distinct approach from considering only the demand reduction effects of retail distributed generation (RDG) that cannot be counted towards the RES.

## Site and Resource Availability

In the Proposed Technical Feasibility Analysis, staff has stated that it will rely upon the work conducted by the Renewable Energy Transmission Initiative (RETI) and



the CPUC Implementation Analysis to evaluate availability and timing of large scale renewable resource areas within California.

As mentioned in responses submitted by RightCycle on the Implementation Analysis Preliminary Report, published studies have confirmed the availability of WDG sites and resources in California. RETI has identified 27,500 MW of distributed solar PV potential at WDG sites, and the CEC has estimated that California substations and feeders can accept up to 21,700 MW of PV input (as of 2008) with no substantive change to current utility interconnection procedures.

### Transmission Access/Grid Improvement Needs

The Technical Analysis will incorporate various plausible compliance scenarios from a transmission and distribution perspective. The FIT Coalition contends that, by implementing a WDG strategy and taking advantage of currently available resources, there is no clear reason why a significant amount of new transmission should be required to meet the 33% RES.

When referencing the California Independent System Operator (CAISO) study on potential system impacts of renewable energy integration, staff should acknowledge that the study does not evaluate the high WDG case. The CAISO study assumes that 50 TWh will come from central station facility generation and evaluates the transmission needs that would apply to that specific scenario.

A CPUC-commissioned analysis finds that transmission build-outs require at least 10 years to complete if development occurs perfectly, including no supply chain or financial barriers and no mitigation or litigation barriers.

ID	Task Name	Duration	Start	Finish	2006	2008	2010	2012	2014	2016	2018	2020
1	Generic Timeline	126 mons	9/1/09	4/29/19			-					
2	RFO Process for Generation Resources	20 mons	9/1/09	3/14/11			-	ר				
3	Interconnection Queue Process	25 mons	9/1/09	8/1/11			-					
4	System Impact Studies to Generator Fiancial Commitment	13 mons	9/1/09	8/30/10			<b>—</b> ]					
5	Develop Transmission Plan for Buildout and Upgrades	12 mons	8/31/10	8/1/11			Ľ					
6	Prepare PEA/CPCN	24 mons	8/2/11	6/3/13				-	ן			
7	CEQA/NEPA Review	30 mons	6/4/13	9/21/15						ղ		
8	CPUC or CEC Decision Process	5 mons	9/22/15	2/8/16						<b>ب</b>		
9	Transmission Line Final Design & Construction	42 mons	2/9/16	4/29/19						<b>—</b>		
10	Generation and Tie Lines to Renewable Resources	42 mons	2/9/16	4/29/19						<b>*</b>	<b></b>	
11	Supply Chain Time Requirement	0 days	4/29/19	4/29/19							\$	4/29/19

Source: CPUC-commissioned E3 analysis, Jan09



As staff analyzes potential constraints and barriers to the development of generating facilities and the requisite transmission permitting, the FIT Coalition would encourage staff to contrast any findings to a high WDG scenario. WDG avoids many of the permitting and development delays, costs and risks associated with large-scale renewable generating facilities located in remote areas.

## Recent and Planned 33% Assessment Studies

As staff references the assessment and modeling work conducted by other agencies, the FIT Coalition stresses the use of the High DG scenario planned in the upcoming update to the CPUC 33% RPS Implementation Analysis. The examination of the High DG case is the focus of the CPUC's newly formed Renewable Distributed Energy Collaborative (Re-DEC) and all parties recognize that the original High DG assessment needs to be updated with current data. The FIT Coalition has conducted research and gathered studies on the efficacy of WDG in California, as well as other regions around the country and other countries around the world. Without a doubt, the recent trends in renewable energy markets have made the High DG case significantly more viable and cost-effective than only a year ago.

### Program Administration and Administrative Barriers

The FIT Coalition contends that existing RPS administrative and procedural requirements lead to parasitic transaction costs and parasitic transaction time. Such waste prevents many projects from launching and poses a significant barrier to developing robust markets for renewable energy generation.

Comments submitted by GreenVolts to the CPUC on the 2008 Market Price Referent detail the complexities and inadequacies of the RPS requirements. In contrast, a comprehensive Feed-In Tariff (FIT) program removes administrative burdens and the parasitic costs associated with them. As such, a high WDG scenario that is enabled by a comprehensive FIT has considerable feasibility advantages over current RPS program procurement, including better risk management and cost containment.

#### **Compliance Metrics**

With respect to compliance metrics, as stated in the FIT Coalition's RES Concept Outline comments, a key weakness in the RPS is the degree of flexible compliance. Currently, utilities are allowed to temporarily meet requirements with signed contracts for project development instead of actual production. The RES should disallow this flexibility except under extraordinary circumstances and require that all compliance be based on actual renewable energy production.



## Purchase and Use of RECs

The FIT Coalition would again refer to previously submitted comments regarding the purchase and use of RECs. The Technical Analysis of various RES scenarios should discount the use of unbundled RECs as a significant contributor to the targets. Much of the REC-value is lost in parasitic administrative costs associated with REC trading and monitoring. More importantly however, REC-trading will encourage more out-of-state sourcing, which incurs additional risks and issues as wells as fails to satisfy the state's economic goals.

# Closing

The FIT Coalition submits that a high WDG scenario is a technically feasible way to meet the 33% RES by 2020, and one that should be strongly considered by staff. Our extensive research and studies indicate that there is significant potential in the WDG market that can currently be integrated with the existing electricity grid without requiring costly, time-consuming, and risky transmission or large-scale central station development. The FIT Coalition welcomes any questions regarding WDG and FIT policies and looks forward to working with CARB further on this critically important regulation.

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