

TENNESSEE VALLEY AUTHORITY DRAFT IRP AND POTENTIAL FOR SOLAR DEVELOPMENT

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To: Clients and Colleagues

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On February 15, 2019, the Tennessee Valley Authority (TVA) released their [draft 2019 Integrated Resource Plan \(IRP\)](#), which outlines potential capacity resource mixes over the next 20-years.¹ The plan puts forth resource mix projections based on five different planning strategies and six scenarios for a total of 30 different outcomes. TVA will announce a preferred planning strategy after finalizing the IRP in summer 2019. Nonetheless there are still significant signals on future resource mixes within the draft plan. Notably, in contrast to an absence of any new capacity for coal, hydro, and wind, there is an increase in the share of solar across all projections, with differences between the amounts of utility-scale and distributed solar.²

Solar is projected to expand by 3,700 to 8,800 MW by 2038.³ A large majority of these projected additions are utility-scale solar.⁴ In two of the planning Strategies (A – “Base Case” and D – “Promote Efficient Load Shape”) all additions are projected to be utility-scale solar additions; and in the other three planning Strategies (B – “Promote DER”, C – “Promote Resiliency”, and E – “Promote Renewables”), there are varying amounts of distributed solar growth in addition to utility-scale growth. Exact numbers are not provided in the draft IRP, but the differences are visually illustrated in Figure 1 on the next page.

Results from past RFPs provide an indication of future opportunities for solar development. For example, a 2015 RFP for solar resulted in a 53 MW project owned and operated by Silicon Ranch.⁵ More recently, as a part of TVA’s [2017 Renewables RFP](#) and in partnership with Google, two 150 MW solar projects are being developed by NextEra Energy Resources and Invenergy. All power will be purchased by TVA via PPAs, with Google buying and using any power required for their data center needs.⁶ This November, a similar partnership in scope and structure was made with Facebook, and the developers NextEra and First Solar.⁷ While the more recent project was not attributed to the 2017 RFP, it is clear that regardless of what planning strategy is adopted by

¹ TVA. 2019 Integrated Resource Plan. [Link](#).

² TVA. 2019 Integrated Resource Plan. Section 7.1.3 “Capacity Plans”

³ TVA. 2019 Integrated Resource Plan. Section 7

⁴ TVA. 2019 Integrated Resource Plan. Figure 7.7

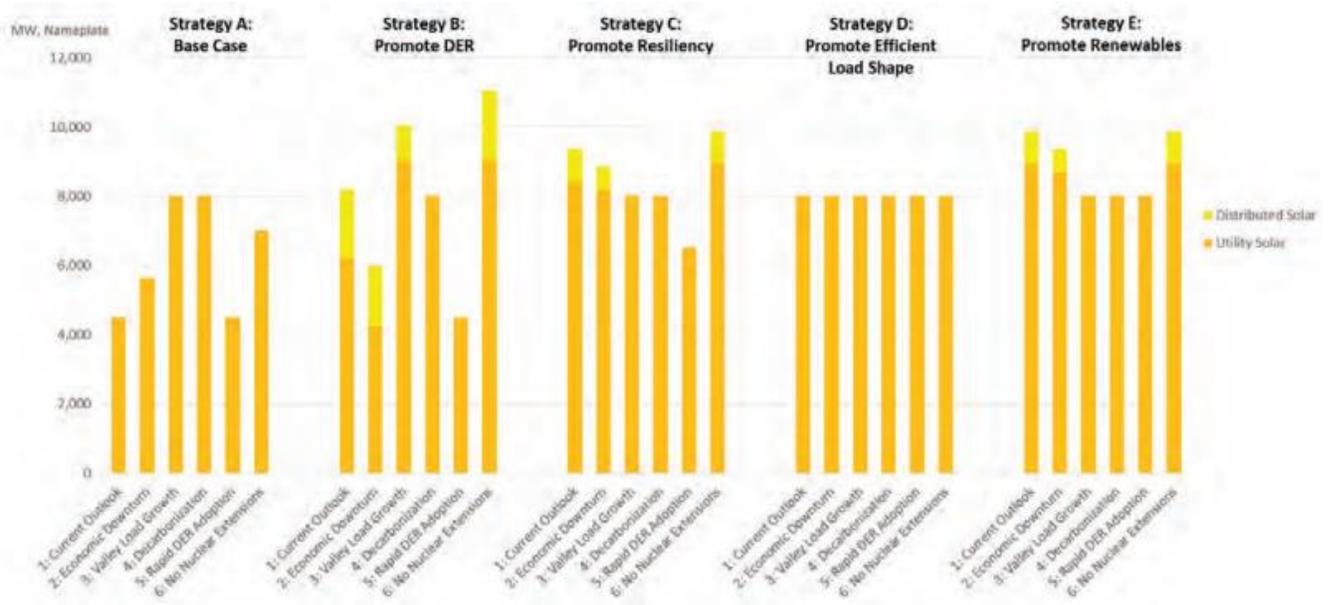
⁵ TVA, 2015 RFP, [Link](#). News article, [Link](#).

⁶ Google, [Press Release](#). Knox News, [TVA announces solar farms](#).

⁷ TVA, [Press Release](#).

TVA, they see solar playing a significant role in their future energy mix.

Figure 1: TVA Nameplate Capacity – Solar Additions



Power Advisory would welcome the opportunity to assist clients in assessing potential opportunities presented by TVA’s draft IRP, as well as other opportunities across the United States.