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International Submission “ SB 100 Joint Agency Report

Hello,

I am submitting this comment as an international participant from Denmark. Your online form requires a U.S. state, but since I am not a U.S. resident, please note that my location is:

Ikast, Denmark (International Submission)

Thank you for including perspectives from outside the United States. I appreciate the opportunity to provide input on California’s SB 100 Joint Agency Report and its ambitious path toward 100 percent renewable and zero-carbon electricity by 2045.

Best regards,
Kristian Sandberg
Ikast, Denmark

Additional submitted attachment is included below.

International Submission – Denmark

SB 100 Main Report

Kristian Sandberg
Ikast, Denmark

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Introduction Letter

California Energy Commission
Office of the Public Advisor
Energy Equity & Tribal Affairs
1516 Ninth Street
Sacramento, CA 95814
USA

Subject: International Submission – SB 100 Joint Agency Report

Dear Commissioners,

My name is Kristian Sandberg, and I am submitting this input as an international participant from Ikast, Denmark. Although I am located outside the United States, I recognize the global importance of California ' s leadership in energy transition and its ambitious goal of achieving 100 percent renewable and zero-carbon electricity by 2045.

The attached report provides my contribution to the ongoing SB 100 process, structured into thematic chapters covering technical, economic, and policy aspects, as well as an executive summary for quick reference.

Please note that in the online filing system, a U.S. state field is required. As I am submitting internationally, my location is:
Ikast, Denmark (International Submission).

I appreciate the opportunity to contribute to this important discussion and to support California ' s role as a global energy leader. Thank you for considering my perspective.

Respectfully,
Kristian Sandberg
Ikast, Denmark

SB 100 Comment

Thank you for the opportunity to contribute to the SB 100 Joint Agency Report process. I submit these comments as an international participant from Ikast, Denmark. Although not a resident of the United States, I recognize the global impact of California ' s ambitious leadership in achieving 100 percent renewable and zero-carbon electricity by 2045.

Main Comments

- Renewable Energy and Storage: Solar, wind, geothermal and storage must be deployed together.
- System Reliability: Smart grids, storage, and demand-response are essential.
- Costs and Benefits: While upfront costs are high, long-term benefits include jobs, health, and security.
- Barriers: Permitting, infrastructure, and financing challenges.

International Perspective

Denmark ' s experience with >50% renewable integration shows feasibility of high renewable shares. Flexible markets and heating systems provide useful lessons for California.

Closing Statement

California ' s SB 100 pathway can inspire other nations to act boldly. Thank you for considering my comments.

Technical Appendix

Renewable Energy Systems: California has vast solar, wind, and geothermal potential. Capacity factors: solar PV 15–25%, wind 35–50%.

System Reliability: Requires smart grids, storage, demand-response, and interconnections. Demand-response alone can reduce peaks 10–20%.

Costs: Solar & wind LCOE 20–40 USD/MWh. Storage ~100–150 USD/kWh. Renewables are now the cheapest new electricity sources globally.

Safety & Environment: Public health benefits from reduced pollution; lower water use than fossil plants.

International Lessons: Denmark has proven >50% renewable integration feasible with stability. California can adapt similar mechanisms.

Repurposing Inactive Platforms: Decommissioned oil platforms can serve as offshore wind or algae hubs, instead of being dismantled. This avoids waste and supports innovation – but should not be used for fossil-linked electrolysis.

Economic Analysis

Investment Costs:

- Solar PV: <20 USD/MWh in some regions.
- Wind: 25–45 USD/MWh.
- Storage: 100–150 USD/kWh.
- Grid modernization: major investment needed.

Long-Term Benefits:

- Job Creation: Renewable industries create 4–5 times more jobs than fossil fuels. Installers, maintenance, construction, and supporting industries drive growth. Housing demand rises with green infrastructure, reducing slum-like conditions.
- Health Benefits: Less pollution = billions saved in healthcare.
- Energy Independence: Local renewables reduce fuel imports.

Cost Competitiveness: Renewables now outcompete coal and gas in most regions.

Risks: Financing hurdles, stranded fossil assets, reskilling costs.

Opportunities: Public-private partnerships, international cooperation, and leveraging California 's innovation ecosystem.

Closing: The economic case is clear: jobs, health, housing, and energy security all benefit long-term.

Scenarios and Barriers

Scenarios:

- A: 100% by 2045 (steady path).
- B: 100% by 2040 (accelerated).
- C: 90% by 2045 (if barriers persist).

Barriers:

1. Grid capacity.
2. Permitting delays.
3. Financing hurdles.
4. Workforce transition.
5. Technology gaps in long-duration storage.

Opportunities:

- Policy innovation.
- International cooperation.
- Public-private financing.
- Repurposing inactive oil platforms.

Closing Note:

SB 100 is ambitious but achievable. It is possible to build supporting digital systems on affordable hardware, such as a Raspberry Pi. I have personally made such a program, which I have named RoseBerry. It automatically invests in stocks and ETFs, analyzes markets, and supports a long-term green transition strategy.

If further information about RoseBerry is desired, I can be contacted at: sandberg1980@gmail.com

Executive Summary

- Ambitious Goal: California aims for 100% renewable electricity by 2045.
- Feasibility: Technically possible with solar, wind, storage, smart grids.
- Costs & Benefits: Upfront costs, but long-term gains in jobs, health, energy security.
- Reliability: Needs storage, demand-response, and modernized grids.
- Barriers: Permitting, grid capacity, financing, reskilling.
- Opportunities: Public-private partnerships, cooperation, innovation.
- Equity: Transition must benefit all Californians – not just the wealthy. Policies must ensure affordability and inclusion for low-income communities.
- Inspiration: If California succeeds, other states can follow. For example, Nevada could power Las Vegas fully with clean energy.
- Conclusion: California can combine ambition and fairness to lead the world.