

THE MINISTRY OF INDUSTRY AND TRADE **ELECTRIC POWER UNIVERSITY**

THE SOCIALIST REPUBLIC OF VIET NAM Independence– Freedom – Happiness

INFORMATION ON NEW CONCLUSIONS OF DOCTORAL DISSERTATION

(Information will be posted on the Website)

Name of dissertation: A research on optimal solutions for control and operation of

photovoltaic integrated charging station in Vietnam.

Major: Energy Engineering Code No: Pilot

Name of Ph.D. Student: Van Nguyen Ngoc

Supervisor: 1. Assoc. Prof. Dr. Duc Nguyen Huu

Training Institution: Electric Power University

Summary of new contributions of the Dissertation

- 1. The dissertation provides solutions to meet new load demand and encourages rooftop PV power development while mitigating adverse impacts of electric vehicles and solar power on the distribution grid. Thus, reducing the need to upgrade/reinforce the grid.
- 2. The dissertation proposes and verifies two scheduling algorithms in terms of improving load profile, filling the valleys, and shedding peak loads.
- 3. An empirical test bench has been successfully set up for evaluating the real-time responses of E2W charging station following long-term charging plan from the scheduler.

Supervisor (Signature)

Hanoi, November 28th, 2023 **Ph.D. Student**(Signature)

Assoc. Prof. Dr. Duc Nguyen Huu

Van Nguyen Ngoc