



CA4 Advocacy for Persons with Disabilities (PWD)

Option 2: Advocacy Campaign Proposal for Disability Inclusion in Singapore

Title: Power for All: Charging Access for Inclusive Mobility

RVN2003: Understanding Disability and Fostering Inclusivity

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Issue: Accessible housing and public spaces

Abstract

Imagine only being able to travel a limited distance at a time. For many electric wheelchair users in Singapore, this is a daily reality. Moreover, they must constantly check their battery and plan every stop in case they run out of power. This lack of accessible infrastructure makes it difficult for them to move freely, have a job, or even run simple errands.

This campaign draws inspiration from the story of Roszana Ali (CNA, 2019), a woman with cerebral palsy who, after seven years of unemployment, found hope as a GrabFood rider. In spite of her best efforts, she could only manage 5 to 6 orders a day before running out of battery on her electric wheelchair. Additionally, according to the Ministry of Social and Family Development (MSF), approximately 75% of PWDs in Singapore participated in social or community activities in the past year, indicating active engagement in community life (MSF, 2024). By improving access to inclusive charging infrastructure, this campaign aims to increase not only community participation but also open up more opportunities for employment, enabling PWDs to take on roles that require independent movement without fear of being stranded.

To truly support independent living and enable PWDs to fully participate in community life, it is imperative to adopt universal design principles. Enhancing public spaces with inclusive features, particularly accessible charging infrastructure

Target Audience

This advocacy campaign is directed toward key stakeholders who have the influence and capacity to implement universal charging infrastructure in public and private spaces:

Primary Targets:

1. **Housing & Development Board (HDB):** As the manager of residential carpark, HDB plays a crucial role in determining the accessibility and inclusiveness of everyday public spaces.
2. **Urban Redevelopment Authority (URA):** Oversees public carpark in commercial and other developments.
3. **People's Association (PA):** Responsible for community clubs (CCs) and communal areas across Singapore. Including charging infrastructure at CCs would improve access to events, classes, and services, helping wheelchair users participate more fully in community life.

Secondary Targets:

1. **CapitaLand and Frasers Property:** As major shopping mall operators in Singapore, they are in a strong position to champion inclusive infrastructure by piloting universal charging stations in high-traffic private carpark.
2. **Charge+:** A leading EV charging solutions provider that can help co-develop charging solutions tailored to the needs of electric wheelchair users, while aligning with broader green mobility goals. This could also be an economic opportunity for them.
3. **General Public (with a focus on students):** This campaign also targets the general public (specifically university students) through creative outreach activities like the Mobility Awareness Challenge in Strategy 2. By engaging young adults in simulated experiences of charging-related inconvenience, the campaign fosters greater empathy, awareness, and future support for inclusive infrastructure policies.

Objectives

1. Increase the number of universal charging stations

in public and commercial spaces across Singapore, beyond existing locations like *Our Tampines Hub*, *Changi Airport* and *Great World City*.

2. Support, mobility, employment and economic participation

for PWDs and other electric mobility device users:

- a. **Reduce mobility-related barriers** by ensuring electric wheelchair users are less limited in job choice or travel range due to charging constraints.
- b. **Enhance opportunities in delivery and mobile-based work** by enabling longer working hours, broader delivery zones, and more efficient routes for those using e-bikes and electric mobility aids.

3. Raise public awareness and foster greater interaction

helping to break down social barriers, and create a more inclusive, understanding society through shared spaces and visibility.

Strategies

Strategy 1: Public–Private Collaboration on Universal Charging Infrastructure

This campaign proposes a government-led initiative that brings together public agencies such as the HDB, URA, PA with private stakeholders like Charge+, BlueSG, and commercial property operators such as CapitaLand. The goal is to develop universal charging stations that support electric wheelchairs, electric bikes, and electric vehicles, using adaptable ports or standardized plug systems that fulfill universal design. This design approach aligns with Universal Design Principle 1: Equitable Use, which emphasizes that “*the design is useful and marketable to people with diverse abilities,*” and Principle 2: Flexibility in Use, which promotes “*the design’s ability to accommodate a wide range of individual preferences and abilities*” (Center for Universal Design, 1997).



Figure 1.1: Existing Charge+ EV charger at Bukit Panjang HDB Carpark

To ensure meaningful impact, the initiative should begin with pilot installations at selected high-traffic carparks to start as there are more existing chargers, but also eventually include malls, community clubs, and transport hubs. From there, we assess real-world demand and identify usability improvements based on feedback from a diverse group of users.

A key component of this strategy is the introduction of a tiered pricing structure:

- Free or subsidized charging access for verified PWDs, such as those holding a valid PWD Concession Card or recognized disability ID.
- Standard market rates for other users, such as electric bike riders and EV drivers.

While all users benefit from accessible infrastructure, individuals who rely on electric mobility aids for daily functioning face fundamentally different needs and constraints. Subsidizing their access removes a cost barrier that could otherwise restrict essential travel, such as going to work, attending medical appointments, or participating in community life.

This approach aligns with Singapore's broader Green Plan, for the goal:

“All HDB towns to be Electric Vehicle (EV) ready with chargers at all HDB car parks by 2025” (Ministry of Sustainability and the Environment [MSE], 2021)

by expanding EV infrastructure in a way that is both sustainable and inclusive, ensuring that the nation's transition to cleaner energy does not leave persons with disabilities behind.

This strategy directly supports all three campaign objectives. By expanding universal charging stations, it increases accessible infrastructure for electric wheelchair users. It also reduces mobility-related employment barriers, enabling users to pursue work opportunities with greater freedom. Lastly, by making inclusive infrastructure a visible part of daily life, it raises public awareness and encourages interaction between PWDs and the broader community.

Strategy 2: “Don’t Let Me Run Out of Battery: A Mobility Awareness Challenge” at NUS

To raise awareness of the daily mobility limitations faced by electric wheelchair users, this campaign proposes a creative public engagement initiative called the “Don’t Let Me Run Out of Battery: A Mobility Awareness Challenge.” The objective is to give participants a small but meaningful taste of the planning and anxiety PWDs will experience.

This challenge will be piloted at the National University of Singapore (NUS) and will be co-organized with the **Student Accessibility Unit (SAU)** under **NUS Accessibility Support**, to ensure relevance, sensitivity, and the inclusion of lived perspectives from students with disabilities. On a Wednesday (to minimise academic disturbance), participating students will be restricted from charging their personal electronic devices like phones or laptops within their faculty buildings. Instead, they must plan ahead and rely on designated charging zones located outside their usual spaces to simulate the power consciousness and inconvenience.

To encourage participation, students will receive a food voucher, for completing the challenge and sharing their reflection. The main goal, however, lies in the experience of inconvenience and careful planning, which mirrors the daily considerations faced by PWDs who rely on electric mobility devices with limited charging infrastructure.

This empathy-building exercise helps:

- Raise public awareness about the challenges of mobility planning for PWDs.
- Foster empathy and understanding among young adults who may not typically think about these issues.
- Create space for discussion on how accessible infrastructure can reduce such barriers and enable greater participation in society.

This strategy aligns directly with *Singapore’s Enabling Masterplan 2030*, which calls for more public education activities in schools, workplaces, and the community to build greater disability awareness and promote inclusive communities (MSF, 2022).


DON'T LET ME RUN OUT OF :


A Mobility Awareness Challenge


ABOUT THE CHALLENGE:

"DON'T LET ME RUN OUT OF BATTERY" IS A **ONE-DAY MOBILITY AWARENESS CHALLENGE** DESIGNED TO HELP YOU EXPERIENCE THE PLANNING STRESS THAT ELECTRIC WHEELCHAIR USERS FACE EVERY DAY. FOR JUST ONE WEDNESDAY AFTERNOON, YOU'LL TRY NAVIGATING CAMPUS **WITHOUT CHARGING YOUR DEVICES IN YOUR FACULTY BUILDING**. CAN YOU MANAGE YOUR BATTERY AND YOUR TIME??


HOW IT WORKS

 WHEN: WEDNESDAY, [23 APR 2025 & 30 APR 2025]

 WHERE: ACROSS NUS CAMPUS

 YOUR MISSION:

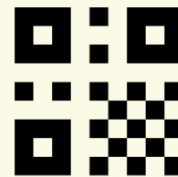
- NO CHARGING IN YOUR FACULTY BUILDING FOR THE WHOLE DAY
- SUBMIT **A SHORT REFLECTION ON HOW THE CHALLENGE MADE YOU FEEL**
- INCLUDE A BRIEF PLAN EXPLAINING HOW YOU MANAGED YOUR BATTERY AND MOVEMENT ACROSS CAMPUS
- UPLOAD 1 PHOTO OF YOURSELF CHARGING YOUR DEVICE OUTSIDE YOUR FACULTY

 SMALL TOKEN OF APPRECIATION FOR ALL PARTICIPANTS WHO COMPLETE THE CHALLENGE!



WHY THIS MATTERS

ORGANIZED IN COLLABORATION WITH THE **STUDENT ACCESSIBILITY UNIT (SAU)**, THIS CHALLENGE **RAISES AWARENESS** ABOUT THE REAL MOBILITY BARRIERS FACED BY PWDS IN SINGAPORE. MANY ELECTRIC WHEELCHAIR USERS LIVE WITH RANGE ANXIETY DAILY, CAREFULLY PLANNING ROUTES TO AVOID GETTING STRANDED WITHOUT A CHARGE. THIS INITIATIVE AIMS TO SUPPORT SINGAPORE'S **ENABLING MASTERPLAN 2030**, WHICH CALLS FOR **GREATER DISABILITY AWARENESS** IN SCHOOLS AND THE COMMUNITY. BY PARTICIPATING, YOU HELP BUILD A MORE INCLUSIVE, EMPATHETIC NUS COMMUNITY WHERE ACCESSIBILITY MATTERS TO EVERYONE.



FIND OUTMORE BY
SCANNING THE QR CODE!



Office of
Student Affairs

Figure 2.1: Don't Let Me Run Out of Battery Campaign Event Poster

Evaluation

Evaluation (Strategy 1)

After 1 year of the campaign, success will be measured through:

- Strategic placement of chargers in key locations frequently visited by PWDs (e.g., hospitals, community clubs, malls).
- Installation and adoption metrics, such as the number of universal chargers deployed, usage frequency, and proportion of users with PWD concession cards.
- User feedback collected on-site via QR code surveys to assess satisfaction, accessibility, and design effectiveness.
- Stakeholder engagement, including whether public and private partners (e.g., HDB, CapitaLand, Charge+) commit to scaling the pilot project.

Evaluation (Strategy 2)

After 2 weeks of running “Don’t Let Me Run Out of Battery: A Mobility Awareness Challenge” in NUS, success will be measured through:

- Collaboration with the Student Accessibility Unit (SAU): SAU’s involvement in co-designing and promoting the challenge will be key. Their participation ensures sensitivity to lived experiences and relevance to the broader accessibility discourse at NUS.
- Participation rates in the Don’t Let Me Run Out of Battery: A Mobility Awareness Challenge, including the number of students who register and complete the activity.
- Qualitative feedback and reflection submissions from participants, focusing on what they learned about mobility limitations and their awareness of accessibility issues.
- Follow-up interest in accessibility-related causes or initiatives, such as increased sign-ups for volunteer activities with SG Enable or campus advocacy groups.
- Media coverage or campus dialogue, including whether the activity sparks discussion within student groups, NUS Telegram channels, etc.

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