GreenRoulette: A Decentralized Betting Platform

1 Introduction

GreenRoulette is a decentralized application (dApp) built on the Ethereum blockchain that allows users to bet in a game of chance while contributing to charitable causes. The dApp is powered by a smart contract with a central pool of Ether (ETH). When players lose a bet, their funds are added to this pool. The pool's growth benefits both charitable organizations and partners who stake their ETH in the platform.

2 Pool Distribution

Every month, a fixed percentage of the total pool is distributed as follows:

- **4%** of the pool goes to various **charities**.
- **1%** of the pool goes to the **house**.
- **1%** of the pool is distributed to **partners**.

Partners are users who have staked their ETH in the GreenRoulette pool. The amount each partner earns is proportional to the amount of ETH they have staked compared to the total amount of ETH staked by all partners.

3 Partner Earnings Calculation

To illustrate how partner earnings are calculated, consider the following example:

- Suppose a user has staked 1 ETH and another partner has also staked 1 ETH.
- The total amount staked by all partners is 2 ETH.
- Each partner holds 50% of the total staked amount.
- If the pool size is 100 ETH, 1% of the pool, which is 1 ETH, is distributed to the partners.
- Each partner would receive 0.5 ETH for that month.

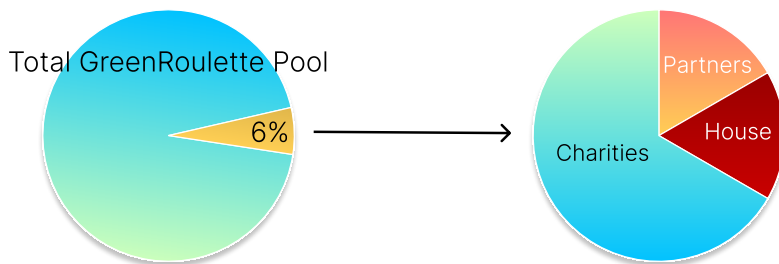## 4 Monthly Fund Distribution

Figure 1: Distribution of Funds Every Month

How the funds are distributed every month is illustrated in Figure 1.

5   Conclusion

GreenRoulette provides an innovative way to participate in a game of chance while supporting charitable causes. By staking ETH in the platform, users can become partners and earn a share of the monthly distribution proportional to their staked amount. This sustainable model not only promotes responsible gambling but also encourages contributions to the greater good.